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CLOSING THE DOOR IN CHINA

An Historical and Critical Survey of Sino-Japanese Relations with special relation to the recent demands of the Japanese Government which, if accepted, would subvert the sovereignty of China and destroy the principle of Equal Opportunity for the Commerce and Industry of all nations in the Republic.

To understand Japan's object in making an extraordinary set of demands upon China it is necessary, or at least desirable, to take a brief glance back at the relations of the two countries in the past few decades. Old China had a profound contempt for old Japan. She did not change her views even after the war of 1894 had resulted so disastrously to the Chinese naval and military forces. It was quite true, as was frequently remarked at the time, that in an Empire of magnificent distances the southern and western provinces neither knew nor cared what was happening in the north. The Empire, while apparently strong and firmly based, was in reality ready to fall to pieces. The Sino-Japanese War awakened the other Powers to the fact, and with a realization of her weakness her difficulties began. Cessions of territory were forced from her; railway concessions which obviously jeopardized China's integrity were demanded and granted; and a relatively large indemnity was claimed by Japan as compensation for the retrocession of the Kwantung Peninsula.

Then in due course came the Boxer madness. It is idle now to go into the argument whether this was not a supreme and splendid, though brutally conceived, effort on the part of a people driven to distraction by the threatened loss of national entity, to retrieve themselves. However this may be, the effort was a ghastly failure; the proud Manchu Court had to flee ignominiously to Sianfu; the historic walls of Peking were pierced by the foreign engineer, and into the sacred enclosure of the Temple of Heaven the despised foreigner took his ponies and disported himself. In this punishment of the Chinese people for the sins of the Court, Japanese soldiers for the first time fought shoulder to shoulder with European troops. And from that moment Japan demanded a position of special and acknowledged importance in relation to China. The assumption of a special position had, in fact, already been shown in a marked manner after the cession of Formosa (or Taiwan) to Japan. The Japanese look at most things from a military point of view and they realized that the possession of Taiwan enabled them to dominate the province of Fukien. They very soon showed that they intended to secure that dominance by every available means. Hundreds of Japanese in the guise of small traders or priests penetrated into the interior of the province, mapping it out with the thoroughness with which the Japanese do most things they undertake. The preparations made against the day of necessity elsewhere and on other occasions were made in Fukien.

The Alliance with Great Britain and the result of the Russo-Japanese war confirmed Japan's position as a kind of special guardian of China. As residuary legatee of Russia, Japan became possessed of rights in the Liaotung Peninsula and the railway

zone in Manchuria which necessarily involved closer association with the Peking Government. Abandoning any attempt to adhere to the strict chronological sequence of events, it is interesting to recall that Japan was not backward in signaling her accession to a position of special importance. The "Tatsu Maru" incident, the Autung-Mukden Railway dispute, and the Chientao discussions, all showed that Japan intended to make China feel that she had to deal with a Power infinitely stronger and quite determined to make use of that strength whenever she deemed it necessary. In the position she took up in regard to each of these questions Japan adopted an attitude of cynical brutality which disgusted those observers in the Far East who were close enough to things to see what was really happening, yet sufficiently distant to gain the right perspective. Much of the so-called "anti-Japanese feeling," of which some of the publicists of Japan have complained, has been directly due to Japan's own actions. There is a spirit of fair play in the world, and bystanders are not inclined to countenance a continued course of bullying and browbeating of the weak by the strong. Note should be taken of this by those interested.

From this time onward Japan's attitude to China has been that of one wholly determined to exploit his neighbour's domain, and to lose no chance of fixing a cause of quarrel. The Nanking incident, which could have been arranged with almost any one of the other countries with which China has associations, with the minimum of difficulty, was made the occasion by Japan of humiliating demands and a demonstration of force. It is true that the demands were in some degree modified owing to advice given by a nation which may find it necessary to give even stronger advice in the near future. The whole incident showed, however, that Japan cynically avowed her intention to treat China with a lack of consideration that she would not have displayed to any other sovereign Power.

We have omitted reference to Korea and Japan's treatment of that ancient Empire. But as Korea was once a vassal state of China it is as well to place on record that Japan fought two wars ostensibly to secure Korea's independence, which Japan solemnly guaranteed, only to annex the country when she felt assured that there would be no interference by any other nation. This must not be taken as advancing the view that the loss of independence has involved any material loss to the Korean people. Rather has there been a gain. The currency of the country, which was in a deplorable condition, has been placed on a sound basis; the legal administration, which was a scoff and a by-word, has been reformed and, if not perfect, is distinctly better than it used to be; while necessary public works have been initiated and in many instances completed. There is no intention to belittle in any way

the excellent results that have attended Japanese administration in Korea. What we wish to emphasize is that she gained possession of the peninsula by diplomatic sharp practice and a demonstration that her leading national principle is that might is right. It is well to bear this in mind when considering China's prospects of fair treatment from Japan.

THE PRESENT CRISIS

Having glanced at the relations of China and Japan in the remoter past we must now turn to the events which have led up to the present crisis. There are other incidents that might have been mentioned, notably the murder of Chinese policemen by Japanese soldiers in Manchuria. On that occasion it will be remembered Japan showed herself averse to making reparation, though she was obviously in the wrong, and only did so at last ungraciously and inadequately. But it is not the immediate purpose to pile up instances of arrogant unfriendliness displayed by Japan towards China. Our purpose has been served if we have shown that there has been a succession of such instances extending over a long period, while, as far as our knowledge goes, there has been no solitary case in which Japan showed disinterested friendliness for her neighbour.

When war broke out in Europe the situation in the Far East was peculiar. China, naturally, was in no sense interested and she took the course of declaring her neutrality at the first opportunity. But part of China's territorial possessions, namely a zone of about 200 square miles surrounding the Bay of Kiaochou, had been leased to one of the belligerents, Germany, who had turned it into a naval and military base. The town of Tsingtau was fortified against attack by land and sea. A small but powerful German fleet was in Kiaochou Bay when hostilities began, and an Austrian cruiser was also in port. The British, French and Russians had in Far Eastern waters a fleet of preponderant strength. As far as military forces were concerned Germany had a garrison of about 3,000 regulars at Tsingtau, while the British had about a similar number of European and Indian troops in North China and Hongkong. Russia had troops available at Vladivostok, and France had a considerable force in Indo-China. There seemed to most people, if hostilities unfortunately took place in Chinese territory, no reason why the European allies should not cope with the situation. It was generally hoped, however, that this would not be necessary. Germany might without loss of dignity and prestige, have handed over the Kiaochou Protectorate to China to bide the issue of the war in Europe; interned her soldiers, and sent her fleet forth to meet what fortune it might. Had this been done much loss of life and destruction of property would have been prevented

and endless complications averted. It is said, with what truth we are unaware, that Germany had begun negotiations with China for the return of the Protectorate when the Japanese ultimatum to Germany was suddenly sprung upon the world.

The position of Japan in relation to the belligerents has to be considered. As the ally of Great Britain, Japan had certain obligations. One was to preserve the peace of the Far East; another to maintain the territorial integrity of China. Neither of these called for the intervention of Japan, but a third bound the allies to protect the interests of each other if threatened. This gave Japan her excuse and opportunity. It is quite true that British shipping in Far Eastern waters was menaced as long as a fleet in being remained at Tsingtau—there is no evidence, however, that Japan's services were requisitioned by Great Britain and there is some reason to suppose that they were not. The British Foreign Office, though naturally preoccupied by the more important situation in Europe, has its own officials whose especial care is the Far East. They would undoubtedly realize at once that Japanese intervention would cause most serious future complications, and we may be pardoned, therefore, for doubting whether the British Government ever acquiesced in Japan joining in unless it were that faltering kind of affirmative given when the gentleman of the road calls upon his victim to stand and deliver. But Britain acquiescent or not, Japan presented her ultimatum on August 15 in the following terms:—

"We consider it highly important and necessary in the present situation to take measures to remove the causes of all disturbances of peace in the Far East and to safeguard the general interest contemplated by the agreement of Alliance between Japan and Great Britain in order to secure a firm and enduring peace in Eastern Asia, the establishment of which is the aim of the said agreement. The Imperial Japanese Government sincerely believe it their duty to give advice to the Imperial German Government to carry

out the following two propositions. Firstly, to withdraw immediately from Japanese and Chinese waters German men-of-war and armed vessels of all kinds and to disarm at once those which cannot be so withdrawn, and secondly, to deliver on a date not later than September 15 to the Imperial Japanese authorities, without condition or compensation, the entire leased territory of Kiaochou with a view to the eventual restoration of the same to China. The Imperial Japanese Government announce at the same time that in the event of their not receiving by noon, August 23, 1914, the answer of the Imperial German Government signifying unconditional acceptance of the above advice offered by the Imperial Japanese Government, they will be compelled to take such action as they may deem necessary to meet the situation."

The language in which the ultimatum was couched left it beyond the bounds of possibility that Germany would accept the "advice" so gratuitously, if not graciously, offered. Those whose memories took them back to the events immediately following



His Excellency Lu Chen-hsiang
Chinese Minister of Foreign Affairs who represents China
in the negotiations connected with Japan's demands

the Sino-Japanese War at once recognized a remarkable similarity between the wording of the ultimatum and the "advice" offered by Germany, Russia and France to Japan in regard to the retrocession of the Liaotung Peninsula. As was to be expected Germany made no reply whatsoever to Japan's ultimatum and the latter on the day the ultimatum expired, August 23, declared war. As a slight digression it is permissible to suggest a point that it is believed has not hitherto been raised. What would have happened if Japan had elected to remain as an interested onlooker? As has been shown, the Allies—Great Britain, France and Russia—had a superior, but not greatly superior, naval force. They also had available sufficient troops to invest Tsingtau. In all probability instead of Vice-Admiral Kato declaring the blockade of Kiaochow, as he did on August 28, the blockade would have been declared much earlier by the ranking officer of the allied naval forces. It may also be assumed that instead of steaming out into the Pacific, the German Admiral, feeling he had a sporting chance, would have given battle. Probably the battle would have resulted in favour of the Allies, in which case few if any of the German ships would have remained afloat and such as did would have been so badly shattered that they could not become again effective. Similarly assuming a German victory, it would have been won at such a cost that Germany would not have been in a condition to harry the Allies' coastwise shipping until repairs and refitting had been completed, in other words until a long period had elapsed during which a new allied fleet would have gathered. If this be anything like a fair supposition of what would have taken place if Japan had not intervened, then there would have been no enormous destruction of British shipping in the Indian Ocean; no dislocation of the whole programme of maritime sailing, and no loss of the Good Hope and Monmouth. The speculation is at least interesting.

Complementary to Japan's ultimatum is the Declaration of War by the Emperor of Japan, which was couched in the following terms:—

"Issued at Tokio, August 23, 6 p.m.

"We, by the grace of Heaven, Emperor of Japan, seated on the Throne occupied by the same dynasty from time immemorial, do hereby make the following proclamation to all our loyal and brave subjects:

"We hereby declare War against Germany, and we command our army and navy to carry on hostilities against that empire with their strength, and we also command our competent authorities to make every effort, in pursuance of their respective duties, to attain the national aim by all means within the limits of the law of nations.

"Since the outbreak of the present war in Europe, the calamitous effect of which we view with grave concern, we on our part have entertained hopes of preserving the peace of the Far East by the maintenance of strict neutrality, but the action of Germany has

at length compelled Great Britain, our ally, to open hostilities against that country, and Germany is at Kiaochow, its leased territory in China, busy with warlike preparations while its armed vessels cruising the seas of Eastern Asia are threatening our commerce and that of our ally. Peace of the Far East is thus in jeopardy.

"Accordingly our Government and that of his Britannic Majesty, after full and frank communication with each other, agreed to take such measures as may be necessary for the protection of the general interests contemplated in the Agreement of Alliance, and we on our part, being desirous to attain that object by peaceful means, commanded our Government to offer with sincerity an advice to the Imperial German Government. By the last day appointed for the purpose, however, our Government failed to receive an answer accepting their advice. It is with profound regret that we, in spite of our ardent devotion to the cause of peace, are thus compelled to declare war, especially at this early period of our reign and while we are still in mourning for our lamented mother.

"It is our earnest wish that by the loyalty and valour of our faithful subjects peace may soon be restored and the glory of the Empire be enhanced."

JAPAN'S PROFESSIONS

OF GOOD FAITH

It would be idle to deny that anxiety was felt, particularly in China and America, in regard to Japan's intentions. When it was generally understood that, in view of Germany's action in calling her reservists from all parts of the Far East to Tsingtau, the Protectorate would be attacked by an international force, no alarm was felt as it was recognized that the ultimate fate of Tsingtau would be decided by the event in Europe. But when Japan intervened and it became clear that, by reason of her possessing adequate forces in immediate readiness, the task of reducing the fortress would be left almost entirely to her, real uneasiness was felt in many quarters, not least in China and America. Probably it was to allay this feeling that Count Okuma, the Premier of Japan, sent on August 15, the day the

ultimatum was delivered, the following message to the East and West News Bureau, Brooklyn:—

"Japan's proximity to China breeds many absurd rumours; but I declare that Japan acts with a clear conscience, in conformity with justice, and in perfect accord with her ally. Japan has no territorial ambition, and hopes to stand as the protector of peace in the Orient."

This he followed, when addressing a gathering of Japanese business men at Tokyo on August 18, with the following explicit statement:—

"Japan's warlike operations will not extend beyond the limits necessary for the attainment of the object of the defense of her own legitimate interests.

"The Imperial Government will take no such action as could give to a third party any cause for anxiety or uneasiness regarding the safety of their territories or possessions."

Evidently realizing that anxiety had not yet entirely been



Mr. Eki Hioki

Japanese Minister at Peking, who represents Japan in the negotiations connected with Japan's demands

dispelled, on August 24, Count Okuma sent a message to the American people through *The Independent*, the well-known magazine, in the following terms:—

"I gladly seize the opportunity to send, through the medium of '*The Independent*,' a message to the people of the United States, who have always been helpful and loyal friends of Japan.

"It is my desire to convince your people of the sincerity of my Government and of my people in all their utterances and assurances connected with the present regrettable situation in Europe and the Far East.

"Every sense of loyalty and honour oblige Japan to co-operate with Great Britain to clear from these waters the enemies who in the past, the present and the future menace her interests, her trade, her shipping, and her people's lives.

"The Far Eastern situation is not of our seeking.

"It was ever my desire to maintain peace, as will be amply proved; as President of the Peace Society of Japan I have consistently so endeavoured.

"I have read with admiration the lofty message of President Wilson to his people on the subject of neutrality.

"We, of Japan, are appreciative of the spirit and motives that prompted the head of your great nation, and we feel confident that his message will meet with a national response.

"As Premier of Japan, I have stated and I now again state to the people of America and of the world that Japan has no ulterior motive, no desire to secure more territory, no thought of depriving China or other peoples of anything which they now possess.

"My Government and my people have given their word and their pledge, which will be as honourably kept as Japan always keeps promises."

There is no reason to suppose, and it would be improper to suggest, that the Japanese Premier was not in genuine earnest. Count Okuma is a civilian, is not a member of either of the great military clans which have so long dominated in Japan, and is, moreover, the head of the Japanese Peace Society. In all probability he was anxious to reassure the world in regard to Japan's designs and meant to carry out his promises to the letter. Unhappily it is the War Party, headed by Prince Yamagata, that is the ultimate court of appeal in Japan. Count Okuma, a civilian, may give what promises and assurances seem good to him, and if they assist the War Party's plans they are regarded with benignity.

Japan evidently thought that it was particularly necessary to allay any suspicion on the part of America, as is evidenced by Count Okuma's message. But as there might not unnaturally be some apprehension of a nearer Japanese approach to the Philippines, in view of the fact that Germany had island possessions in that portion of the Pacific, steps were also taken to reassure the American public in this regard. Thus we find that an announcement to the following effect was presented to the Secretary of State at Washington from the British Foreign Office:—

"It is understood that the action of Japan will not *extend to the Pacific beyond the China seas*, except as may be necessary to protect Japanese shipping lines in the Pacific, nor in Asiatic waters westward of the China seas, nor in foreign territories except territory in German occupation on the Continent of Asia."

On October 6 the Navy Department at Tokyo announced that a Japanese squadron had landed bluejackets on Jaluit Island, the seat of Government in the Marshall Archipelago, and the same day the following official declaration was made by the Japanese Embassy at Washington:—

"The Japanese Embassy has just received an official cablegram from Tokyo practically confirming the report of the destroying of the military establishments on Jaluit Island, one of the German bases in the Marshall Archipelago, which appeared as a Tokyo Telegram in a morning paper.

"In the above connection, it may be recalled that the German men-of-war have been making their appearance in the Pacific and the South Seas and have been disturbing the shipping routes ever since the outbreak of the present war. This fact at last compelled the allied fleets of Japan and Great Britain to decide upon expeditionary measures to keep the routes clear, as was recently reported in the press. In the light of this fact it may be safely concluded that the action taken by a portion of the Japanese expeditionary squadron above referred to is nothing but a step toward the fulfillment of the expeditionary mission."

Nothing further was heard of the occupation of the Marshall Archipelago until November 18, when an official statement in the following terms is said to have been made by the Australian Minister for Defence:—

"The Japanese Government has intimated to the British Government that it is ready to hand over the Marshall and other German islands in the Pacific, which are temporarily occupied by the Japanese, to an Australian force. The British Government has informed the Japanese Government of its intention to act accordingly. A special Australian force will be despatched to the islands and will remain in occupation until the termination of the war, when the matter of the ultimate disposal of the islands will be a question for consideration by the allied powers.

"As the Federal Government will have the responsibility for the occupation of islands it is necessary that not only the military occupation, but such matters as trade, food supply, and postal and commercial affairs be investigated and organized. Commander Pethebridge will accompany the force to make the necessary arrangements."

It will be seen from these citations that Japan was scrupulously careful to cast reassurances and promises broadcast. So insistent was she upon the excellence of her intentions that some cynically-minded persons were inclined to quote, "Methinks thou dost protest too much."

PROMISE AND PERFORMANCE

The first active step taken by Japan for the reduction of Tsingtau was the landing of a force at Lungkow, a port on the Northern coast of Shantung, west of Chefoo. The precise reason why Lungkow was chosen as the place of debarkation has never been officially explained but, as pointed out in a recent article in the FAR EASTERN REVIEW, the Japanese had for some time been paying particular attention to this port. It may be assumed that the choice was not made at haphazard. China protested, but protests from China were not likely to affect the Japanese War Party. Then China, very wisely, followed the precedent created in the Russo-Japanese War and voluntarily declared a War Zone within which the belligerents could carry on operations. It is specially to be noted that this zone was declared, not by agreement with Japan, as some Japanese papers have claimed, but as a voluntary act designed to save as much as possible of the population of Shantung from the terrors and inconveniences attending warlike operations. Japan, as is her wont, said nothing, but went ahead with her military preparations. The unfortunate Chinese residents in the line of march had soldiers quartered upon them and supplies requisitioned. Of the stories of outrages committed by the Japanese troops it is unnecessary to speak, beyond remarking that some may have been exaggerated, but, anyway, in war such things occur. Protests in regard to the violation of China's sovereignty were unheeded, but with admirable self-restraint the Chinese Government contented itself with placing its protests on record, notwithstanding constant urging on the part of those whose zeal outran their discretion that strong action should be taken. As the Japanese tightened their strangle-hold upon Tsingtau they began also to move westward. First a force was sent to Weih sien. China vigorously protested. Weih sien was well outside the War Zone. Japan ignored the protest, or rather declared that military necessity dictated her action, and sent her troops further west to Tsinanfu, the capital of the Province of Shantung. At this period many of those who had watched the course of events in Manchuria during and after the Russo-Japanese War began to have an inkling of Japan's real designs.

In due course Tsingtau fell, on November 7 to be precise, to the assault of the Japanese army and navy aided to a small extent by British naval and military units. The world, or at least the Far Eastern world, waited with breathless anxiety to see whether Japan would honour her promises. It was recognized that it would not be immediately possible for the port to be opened nor for a civil administration to be appointed. The harbour and the adjacent waters had to be cleared of mines, an inventory of Government property in Tsingtau had to be made and many things had to be done that required time. The Far Eastern world watched and waited. They are still watching and waiting, but they have learned something.

The administration of Tsingtau had been taken over solely by the Japanese military authorities, either by arrangement with the British or otherwise. Nothing of real importance occurred until the question of reopening the Maritime Customs Office at the port arose. It is true that British merchants who had carried on business at Tsingtau were held up at Tsinanfu and refused permission to return to the port, and it is also true that a Japanese

line of steamers was granted permission to run to Tsingtau while this privilege was forbidden to the steamers of other nationals. At the moment of writing, however, British vessels have been allowed to enter Kiaochou Bay. But these things were not regarded as being of very great importance, and it was thought that matters would soon adjust themselves. The Customs incident, however, betrayed the course of action that Japan proposed to adopt. It has to be remembered that by virtue of an agreement concerning the establishment of a Maritime Customs Office at Tsingtau, concluded between the German Minister at Peking and the late Sir Robert Hart, then Inspector-General of Customs, Germany obtained certain privileges in regard to the personnel of the Tsingtau Customs staff. The first three clauses of the agreement were as follow:—

1.—The Commissioner or the Chief of the Maritime Customs Office at Tsingtau is to be of German nationality. The Inspector-General of Customs will come to an understanding with the German Legation at Peking in case of appointing a new Commissioner.

2.—The members of the European staff of the Maritime Customs Office at Tsingtau shall, as a rule, be of German nationality; in case, however, of a suddenly occurring vacancy or of temporary requirements of the service, members of other nationalities may be provisionally sent to Tsingtau.

3.—The Inspector General of Maritime Customs will inform the Governor of Kiaochou beforehand about all changes in the staff of the Customs Office at Tsingtau; this, however, does not apply to the employees of the Chinese staff.

China, having accepted Japan's promise of her intention to hand back Kiaochou at its face value, considered that the situation in regard to the Customs would be met were she to appoint a British Commissioner in the usual way—namely upon the nomination of Mr. Aglen, the Inspector General of Customs—and she proposed the British Commissioner at Mukden. Japan at once entered an objection. China then nominated the Japanese Commissioner at Soochow for the post, with a Briton as Deputy Commissioner, but again Japan objected. She also objected when it was proposed to eliminate the proposed British Deputy Commissioner but to have the staff composed half of Britons and half of Japanese. Then China appointed as Commissioner at Tsingtau Mr. Tachibana, who was the Commissioner of Customs at Dairen, but again Japan objected, and reiterated a previous declaration that the only satisfactory solution was for Japan to appoint a Commissioner and staff from her own people, presumably the Imperial Japanese Customs Department. This remarkable suggestion would, if acted upon, have involved the injection into China's Customs service of foreign officials who in many cases would have taken precedence for promotion over men who had served China long and faithfully. Obviously China could never consent to such an impairment of her sovereign rights and, moreover, even were she inclined to do so she would have engaged herself in serious trouble with the Treaty Powers. It has to be remembered that in the Peace Protocol signed after the Boxer outbreak the Customs revenue was assigned to the service of the Indemnity. Kiaochou, even when in German occupation, never ceased to be Chinese territory, and the Customs revenue from there went into the Chinese Treasury just as did the Customs revenue from Amoy or any other Treaty port. It was, therefore, impossible to accede to the Japanese demand. Sincerely desirous of effecting a compromise that would meet Japan more than half way, China proposed that Mr. Tachibana be accepted by Japan as Commissioner, and that eight members of the Imperial Japanese Customs Department should be permitted to join the Chinese Customs service in the lowest grade.

It is difficult to conceive in what way China could have done more to meet the views of Japan, but, although no official announcement has been made it is understood that officials of the Imperial Japanese Customs Department are now in charge of the Customs Office at Tsingtau. In this manner did Japan signalize her respect for the rights of China and the Treaty Powers.

It has already been mentioned that Japanese troops had been sent as far west as Tsinanfu, thus bringing the whole of the Shantung Railway and the adjacent properties under the control of Japan. The Shantung Railway Company is a private concern registered in Berlin. Nominally the company is Sino-German, but there is reason to suppose that did any Chinese shareholders exist they were men of straw employed to support the fiction that the concern is not solely German. The

rights given to Germany by the Kiaochou Convention were as follow:—

1. The Chinese Government sanctions the construction by Germany of two lines of railway in Shantung. The first will run from Kiaochau and Tsinanfu to the boundary of Shantung province via Wei-hsien, Tsinchow, Pashan, Tsechuen, and Suiping. The second line will connect Kiaochau with Chinchow whence an extension will be constructed to Tsinan through Laiwu-hsien. The construction of this extension shall not be begun until the first part of the line, the main line, is completed, in order to give the Chinese an opportunity of connecting this line in the most advantageous manner with their own railway system. What places the line from Tsinanfu to the provincial boundary shall take in en route is to be determined hereafter.

2. In order to carry out the above-mentioned railway work a Chino-German Company shall be formed, with branches at whatever places may be necessary, and in this company both German and Chinese subjects shall be at liberty to invest money if they so choose, and appoint directors for the management of the undertaking.

3. All arrangements in connection with works specified shall be determined by a future conference of German and Chinese representatives. The Chinese Government shall afford every facility and protection and extend every welcome to representatives of the German Railway Company operating in Chinese territory. Profits derived from the working of these railways shall be justly divided pro rata between the shareholders without regard to nationality. The object of constructing these lines is solely the development of commerce. In inaugurating a railway system in Shantung, Germany entertains no treacherous intention towards China, and undertakes not to unlawfully seize any land in the province.

4. The Chinese shall allow German subjects to hold and develop mining property for a distance of thirty li from each side of these railways, and along the whole extent of the lines. The following places where mining operations may be carried on are particularly specified along the northern railway from Kiaochau to Tsinanfu, Weihsien, Pa-shan-hsien and various other points; and along the southern Kiaochau-Tsinan-Chinchow line, Chinchow-fu, Taiwuhsien, etc. Chinese capital may be invested in these operations, and arrangements for carrying on the work shall hereafter be made by a joint conference of Chinese and German representatives. All German subjects engaged in such works in Chinese territory shall be properly protected and welcomed by the Chinese authorities, and all profits derived shall be fairly divided between Chinese and German shareholders according to the extent of the interest they hold in the undertakings. In trying to develop mining property in China, Germany is actuated by no treacherous motives against this country, but seeks alone to increase commerce and improve the relations between the two countries.

Into the question of the right of Japan to seize and work under military administration enemy's private property we do not propose to enter at this juncture. This matter was gone into fully in the November, 1914, issue of the FAR EASTERN REVIEW. We only quote the items of the Convention relating to the railways so that readers may have the opportunity of referring thereto when we come to deal with the Japanese demands presented to the President of China on January 18, 1915.

TAKING OFF THE MASK

If Japan's attitude in regard to the Customs Office at Tsingtau had heartened those who had consistently distrusted her and discouraged those who believed in her good faith, the War Zone dispute confirmed the beliefs of the one and finally dissipated the hopes of the other. As already explained, China, of her own volition, with the object of saving the people of Shantung as far as possible from the horrors of war, declared a War Zone. It is incidentally to be remarked that Japan never showed the slightest intention of circumscribing her operations within the zone, but proceeded as if Shantung generally were Japanese territory over which China had no rights whatsoever. When the German garrison of Tsingtau had been safely conveyed to Japan and imprisoned and the Japanese military administration at Tsingtau had become firmly established, that is to say about two months after the surrender, there was obviously no further need of a War Zone. It was created solely because acts of war were to be committed. When it became impossible for any further hostilities between Japan and Germany to occur there was clearly no object in maintaining a War Zone. Moreover, it was pretty generally known that Japan was acting in a very high handed manner. She was amongst other things exercising a censorship over telegrams, not only within the War Zone, but what was even more indefensible, in Tsinanfu itself, the provincial capital. China consequently sent a Note to the Japanese Government announcing that she proposed to rescind the declaration of the War Zone. A wave of indignation immediately swept over

Japan. The vernacular press, never distinguished for a superabundance of dignity, literally frothed at the mouth. Chinese "insolence," "arrogance," "consistent unfriendliness to Japan" were denounced in the most unmeasured language. Demands were made that the Japanese Government should adopt a "strong" attitude and that China should be made to pay for her presumption in daring to think that she could exercise her sovereign rights as an independent state. The Opposition party in Japan, which for months past had been twitting the Government with the weakness of its foreign policy, redoubled its efforts, and, in view of the approaching elections, proclaimed itself as a sturdy upholder of the "rights" of Japan in China.

It is necessary thoroughly to understand the position to deal briefly with the political situation in Japan. In the late Diet the strongest party numerically was the Seiyukai, which was utterly opposed to the Okuma Government. In former days a Government did not care whether it had a majority in the Diet or not. So long as it possessed the confidence of the Emperor it could treat with amused disregard even an adverse vote by the popular chamber. Thanks to the sagacity of the late Prince Ito, the Diet possessed no real power. But things have changed. At the present day even a man with the prestige of the late Prince Katsura did not dare to retain office in the face of an adverse majority in the Diet. The military operations against Germany for a time saved the Okuma Government, but it was known that at the first opportunity after the fall of Kiaochow attempts would be made to put a period to its existence. This was the condition of affairs when the Diet reassembled early in December. Jingo Opposition members at once began to harry the Government in regard to its foreign policy, especially in reference to China. On December 9, Baron Kato, the Minister of Foreign Affairs, made a reply to an interpellation by an Opposition member in connection with the retention of Tsingtau by Japan, which has given rise to much discussion. Baron Kato said:—

"I understand that what Mr. Ogawa means in his permanent solution of the Chinese question is to secure the maintenance of China's territorial integrity. This policy has been followed by the Japanese Government since many years ago and the present ministry does not intend to diverge from this fundamental line of policy. Though Mr. Ogawa asked whether the Government is going to restore Tsingtau to China or not yet the question is to be settled in the future and I am not in a position to give any definite reply to this question.

"Mr. Ogawa then inquires if the Government has entered into any contracts with a foreign country, which contract might compel Japan to restore Tsingtau to China in any way. But I assure you that the Government has never entered into such a contract with any foreign countries about the question of Tsingtau. The reason for which the Government in its ultimatum requested Germany to restore the leased territory to China is just similar to that for which years ago the three powers jointly requested Japan to restore to China the Liaotung Peninsula which Japan had occupied during the China-Japanese War. Mr. Ogawa said that if Germany accepted the Japanese ultimatum, the result would have been rather difficult for Japan, because there is a special contract between Germany and China as to the restoration of Tsingtau to China. But as you may know from the terms of the Government's ultimatum to Germany our intention was to cause Germany to restore Tsingtau to China without any conditions or compensations whatever."

In view of the explicit assurances originally given this utterance came, to say the least, as a surprise. Its ambiguity led to apprehension in some quarters in which it had not previously been felt and to the confirmation of the suspicions of others who had throughout regarded Japan with distrust. But the very ambiguity of the utterance was considered by some to be hopeful. The Diet, it was known, was to be dissolved and an election held. What more natural than that a Minister, anxious to secure votes, should play down to the Jingoistic sentiment of the man in the street, who otherwise would be led by the frothy mouthings of the Opposition to range himself against the Government? Baron Kato's statement in no way committed the Government to the retention of Kiaochow, though, as was probably designed, that impression may have been given to the unthinking. The election is pending. In that fact may be found the explanation of many recent events.

The outcry against China's proposal to abolish the War Zone came as an entire surprise to the Chinese Government into whose mind—at that time—had never entered the supposition that Japan proposed to supervise China's domestic administration. However, under Japanese

pressure, China abstained from issuing a proclamation abolishing the zone, and the anomalous position persists to this day of a strip of territory being set apart for warlike operations which ceased months ago. Within this zone, at Kiaochow and for the full length of the Shantung Railway, Japan, that is to say the Japanese military authorities, do practically what they please.

FOREIGN AND JAPANESE VIEWS

It may be well, at this stage, to consider what views were held by foreigners and representative Japanese in regard to the retention or non-retention by Japan of Kiaochow. Among British in the Far East it may safely be said that the predominant sentiment was a sincere hope that Japan would keep her promises in the spirit as well as in the letter. But in other quarters such hopes were not entertained. We take an extract (the article is fully reproduced in this issue) from a most informative article written by Mr. Lewis Einstein, whilom First Secretary of the American Legation at Peking, in the "Journal of the American Asiatic Association," in which he considers, not only the Kiaochow question, but the general bearing of America's friendship with China and sincere good-will towards that country in its relation to Far Eastern politics. The conclusion that he arrives at, namely that America can best help China, not by isolated action, but by harmonious co-operation with other Powers who wish to preserve China's territorial integrity and independence, is undoubtedly sound. Mr. Knox's proposal to neutralize the railways of Manchuria would never have been made if he had consulted the other Powers interested. As a result of that well-meant but unfortunate proposal, the fetters that bind Manchuria were the more securely fastened. But at the moment it is with Mr. Einstein's views in regard to Tsingtau that we are principally interested. To quote:—

"Unless British participation in the siege has been sufficient to exercise a countervailing restraint it is not probable, after the sacrifice of life and treasure which the capture of Tsingtau must entail, that the territory will be restored to China. Japanese diplomacy is a past master in the art of amphibious arrangements characteristic of the East. If it is to be judged by its previous record in the Liao-tung peninsula unless it should demand elsewhere equivalent compensation it will be more inclined to take over the long lease on which German tenure reposed. Reiterating previous assurances regarding the "Open Door" and reaffirming respect for the integrity of China, it probably will take calm possession of its conquest and proceed to develop the careful German beginning in the same systematic way as in Korea and Southern Manchuria. The problem to realize is the extent to which this occupation affects us and what course of action commends itself in consequence."

Turning from the foreign view it is interesting to see what the more enlightened Japanese are thinking on the subject. A responsible periodical, the "Japan Financial and Economic Monthly," has published the views of several gentlemen whose words carry weight.

Baron Shibusawa, the famous banker, gives an expression of opinion that we would like to believe is widely held in commercial and financial circles in Japan. His attitude may be summed up by the following quotation:—

"Although Tsingtau was attacked, captured and held, the Japanese were obliged to do so for the sake of our alliance with Great Britain and peace in the Far East. But about the disposal of the matters which follow in the wake of this, the Japanese people must do their utmost to establish the most perfect sort of friendship with the Chinese and promote the trade between the two nations."

There speaks a man who recognizes that the policy of the Mailed Fist is certain to be ineffective in building up the community of economic interests that should subsist between China and Japan. Unfortunately the opinions of men such as Baron Shibusawa do not seem to be shared by any considerable number of the other gentlemen whose views were obtained by the "Japan Financial and Economic Monthly."

Thus we find Baron Sakatani, formerly Minister of Finance, and now Mayor of Tokyo, saying:—

"How to dispose of Tsingtau and the South Sea Islands (the Marshall Archipelago) is to be decided only after the close of the great theater of war in Europe. Yet, no matter in what way they may be disposed of, *we should by no means let go our already implanted right without due remuneration.*"

After urging that military administration at Tsingtau should be replaced by civil government at the earliest possible moment, Baron Sakatani went on to say:—

"We must take it upon us to manage and develop Shantung Province and this by no other power than that of commerce and industry. In order to take a share in world politics it is of sheer necessity for us to make our best possible efforts for the management of Tsingtau."

It will be seen that while Baron Sakatani suggests in one breath that the future of Tsingtau is uncertain, in the next he declares that, not only Tsingtau, but the whole province of Shantung, should be "managed" and "developed" by Japan.

Let us turn now to Mr. Hajime Nedzu, another well known Japanese publicist. He is evidently in favor of an economic rather than a political conquest of Shantung. He says, *inter alia*:—

"Let us, first of all, establish banks in Tsingtau and Tsinanfu and accept the military notes only for the business of the Shantung Railway, for the purpose of extending their circulation and maintaining their market prices. The point is that when the right time is on hand, the banks can be made to retrace the notes with the silver notes, which they will issue; besides, they can engage in such a manner as to meet the special conditions of the region. Although the Yokohama Specie Bank can very well be appointed, the more suitable one is the Bank of Taiwan. This concern issues silver notes in Central and South China and has succeeded to make good use of them. As an agent of the Hypothec Bank it provides for the needs of small businessmen; and, also, it does a very successful business by issuing deposit notes for wealthy Chinamen and officials. . . . When the Japanese money is thus put to use as a medium of currency, the advantage is that economic disturbances, so common in China, will largely be neutralised and averted in the afore-mentioned places. The cause of Chinese economic disturbances as proved by Gresham's Law, is the predominance of bad money over the good, because Peking has issued inconvertible notes without scruple. Then it stands to reason that together with conveniences for the Sino-Japanese trade, the introduction of Japanese currency will maintain prosperity in Tsingtau and its market districts, as demonstrated by the fact that those regions, where the foreign coin is in use, are more refractory to the panics, than those where the cheap government note is circulated."

We find here, also, the assumption that Kiaochow is to be retained by Japan and that the province of Shantung should become a Japanese sphere of influence.

Next we come to Mr. Ryuhei Shiraiwa, Managing Director of the Japan-China Steamship Company. He points out that Tsingtau is useless to Japan as a military base as she already has in her possession Port Arthur and Dairen. The economic value of the Protectorate was all that had to be considered. He proceeds:—

"As the public is well aware, being a mere desolated port in the Shantung promontory with no products in the surrounding districts, Tsingtau has nothing in itself to brag of, either historical or industrial. Germany had two objects in view in making use of the port economically. First she intended to absorb products in Shantung and its neighbouring provinces by means of railways. Secondly, she intended to operate the iron and coal mines in Shantung. As to the management of railway and mines it is undoubtedly necessary to pay attention not only to Shantung but also neighbouring provinces of North China and to open up as many resources as possible. We must expect to develop other management of Shantung not independently but by the mutual help with other provinces of China, and expect farther to show such a good result as will entitle ours to a typical management. If, on the contrary, the way of our management will give rise to a hostile feeling of Chinese against us and ultimately to difficulties and troubles to our politics and diplomacy vis-a-vis China and lay open ourselves to the suspicion of the Powers of the same sinister ambition as Germany, the result will be a cause of great anxiety for us. Thus, upon the policy of the management of Tsingtau depends not simply the future prosperity of Tsingtau but commercial and economic problems of both Japan and China. Indeed it is a question of serious importance. As it is, the Government authorities, the people at large and brave and loyal soldiers and sailors must decide upon the policy only after a calm and serious consideration."

Mr. Shiraiwa perceives, as a clear-headed business-man might be expected to do, that to antagonize the people of China would be fatal. In his opinion in order to reap tangible advantage from the occupation of Kiaochow the "management" of the Protectorate should be entirely dissociated from political ambition. But he, like most other Japanese whose views have been quoted, disregards the assurance of Count Okuma to the people of America, and bases his arguments on the assumption that Japan has succeeded to the full rights of Germany as the lessees of the Kiaochow Protectorate.

Last, but certainly not least, we come to Mr. Hikokichi Ijuin, formerly Japanese Minister to Peking. He is frankly of opinion that the war in Europe supplies Japan with her opportunity in China. "Now," he says, "that Europe has fallen

into the clutches of a general war, Japan feels urged to do whatever there is within her reach for promoting her prosperity and that of China." Mr. Ijuin points out that of the foreign trade of China Japan's share is less than 20 per cent. of the total. After pointing out that the development of means of communication will largely increase China's foreign trade he appeals to his countrymen to gain a larger share for Japan, and says:—

"That our country has come across such a great opportunity is a consequence of the war, which caused the withdrawal of the European commerce from China. The opportunity is, indeed, rare and will occur only once in a great while, therefore, we must take a step forward and grasp it firmly. And let us do so quickly. If we incur a delay here the armed contest will cease and the European commercial giants will turn to China with redoubled force. Then the mighty opportunity will be lost forever."

From these expressions of opinion two or three facts emerge clearly. Financial and commercial Japan believes that Kiaochow is to remain in Japan's possession, but recognizes that if Japan is to secure the best economic advantages from the position created by the European War political ambition must be kept in the background and the friendship of the Chinese people cultivated. It is also generally assumed that the status of Shantung will for the future be analogous to that of South Manchuria, and that Japan has succeeded to whatever rights Germany possessed in the province. This, of course, is in direct contradiction to the avowed purposes for which Japan drew the sword, but the Japanese people seem to set less value upon the promises of their Premier than they expect should be accorded them by the outside world.

JAPAN SHOWS HER HAND

China and the other nations were somewhat astonished at the divergence between Japan's promise and the performance. On January 18, 1915, Japan set up a new and far from attractive diplomatic precedent and showed China plainly that she was going to follow Mr. Ijuin's advice and take full advantage of the opportunity afforded by the war in Europe, not as that gentleman suggested solely by commercial advancement, but by bullying China into the position of a vassal state.

The perpetrators of deeds of darkness naturally shrink from having them flooded by the light of day, and consequently Japan in presenting through Mr. Hioki, the Japanese Minister at Peking, a series of twenty-one demands, some of the most preposterous character, insisted that they should not be made public. If China disregarded the warning and made the demands known she was to be punished by the presentation of new and still more drastic claims, and the encouragement by Japan of the Chinese rebels in the former country. However, a secret that is shared by a number of persons cannot long remain a secret, and the general facts in regard to the demands, and the extraordinary procedure adopted in presenting them has become known to those whose business it is to discover these things. On the morning of January 18, a Note embodying the twenty-one demands was sent by Mr. Hioki, not to the Minister for Foreign Affairs which would have been quite in order, but to President Yuan Shih-Kai direct. In the afternoon Mr. Hioki had an interview with the President and explained the demands in detail.

Although, as already explained, the terms of the demands have not been officially announced, the following details are correct.

The Demands

The demands are in five groups. There is, of course, the usual preamble that sets forth that the demands are made because both Powers are desirous of maintaining the peace of Eastern Asia and of strengthening the friendly relations existing between them. No reference is made in the main preamble to the preservation of the territorial integrity and independence of China, nor to equal opportunity for all nations. A study of the demands at once explains why. Japan's clearly avowed intention was to gain a "specially favourable position" in certain selected spheres, where the door would be banged, barred and bolted in the face of the other Treaty Powers.

The first group of demands, four in number, relate entirely to Shantung. China is asked to assent:—

To Japan taking over, in due time, all the rights and privileges possessed by Germany in the Province of Shantung.

China must agree to the building of a railway by Japan from Chefoo or Lungkou to join the Shantung Railway.

She must also agree that no territory within the Province of Shantung or islands off the coast shall be leased to any third Power.

Certain places in Shantung are to be opened as Treaty Ports, such places to be jointly decided upon by Japan and China.

In regard to South Manchuria and Eastern Mongolia it was set forth that Japan had always enjoyed a specially favourable position in these regions and for this reason the following seven demands were made:—

Control and administration of the Kirin-Changchun Railway to be taken over by the Japanese Government for 99 years.

The lease of Port Arthur and the term of lease of the South Manchuria and Antung-Mukden Railways to be extended to the period of 99 years.

Japanese subjects to have the right to lease or own land in South Manchuria and Eastern Mongolia for erecting buildings for the purpose of trade and manufacture or for farming.

The Chinese Government to obtain Japan's assent before granting the subject of a third Power the right to build a railway in these regions, or to make a loan with a third Power for the purpose of building a railway in these regions. Japan's assent must also be obtained if a loan is contracted for which the security is the local taxes of Eastern Mongolia and South Manchuria.

In these regions Japanese subjects shall be free to reside and travel and to engage in business and manufacture of any kind whatever.

The Chinese Government must consult Japan first if China decides to employ advisers or instructors for political, financial and military purposes.

Japanese subjects shall be granted the right to work mines in these regions, the locality of the mining areas to be jointly decided upon by the two Governments.

The third group of demands relates to the Hanyehping Company. Japan demanded:—

That the Company should be made a joint concern of Japan and China and that China, without the previous consent of Japan should not dispose of her interest in the Company.

All other mines connected with the Hanyehping Company and mines in the neighbourhood of such mines cannot be worked by persons outside the Company without the Company's permission and the consent of the Company must be first obtained for any mining operation that directly or indirectly affects the interests of the Company.

Japan's solicitude for the territorial integrity of China, overlooked in the main preamble, is remembered in a startling manner in the fourth section of the demands, which consists solely of the following:—

The Chinese Government agrees that no island, port and harbour along the coast shall be ceded to any third Power.

In the fifth and last section the demands number seven. They are:—

China shall purchase over fifty per cent. of the munitions of war she requires from Japan, or Japan shall establish a jointly worked arsenal in China, for which Japanese material must be purchased and Japanese technical experts employed.

The police in certain places in China shall be jointly administered by Japanese and Chinese, or China shall employ in such places numerous Japanese for the purpose of organizing and improving the Chinese police service.

Japanese shall be employed as advisers in political, financial and military affairs.

Japanese subjects shall have the right to propagate Buddhism in China.

Japanese shall have the right of ownership of land in the interior of China for the building of Japanese hospitals, churches and schools.

In the Province of Fukien Japan shall have the right to build railways, work mines, construct harbour works, and in case foreign capital is required Japan shall be first consulted.

Japan shall have the right to build a railway connecting Wuchang with Kiukiang and Nanchang, and a line between Nanchang and Chaochoufu and between Wuchang and Hangchow.

At a later stage we will consider the demands *seriatim*, but for the present it would be well to carry the history of the negotiations up to the time of writing. On January 19, Mr. Hioki saw Mr. Sun Pao-chi, then Minister for Foreign Affairs,

and discussed the matter with him. Subsequently it was decided that conferences should be held between Mr. Lu Cheng-hsiang (who had succeeded Mr. Sun Pao-chi as Minister for Foreign Affairs) and his staff, on the one hand and Mr. Hioki and his staff on the other. The first meeting was held on Tuesday, February 2, and on that occasion the discussion was largely in regard to question of procedure. It would appear that the Japanese desired the Chinese to accept in principle all the demands at this conference, but the Chinese firmly refused. The Japanese, for very obvious reasons, wished to get things over quickly, the Chinese, for reasons equally obvious, declined to be hustled into allowing China to become a trophy to grace a Japanese election day. The Japanese wanted daily conferences, but their eloquence was expended in vain and it was eventually agreed that two should be held each week, and consequently the conference was adjourned to February 5. At this second meeting Mr. Hioki again pressed for the acceptance, in principle, of the twenty-one demands *en bloc*, but the Chinese Minister for Foreign Affairs again refused. However, he made the important concession that he would give an expression of opinion upon each of the demands, and he did so. Mr. Hioki announced, it is reported, that the Japanese Government would agree to withdraw six of the demands. Subsequently Mr. Hioki telegraphed to his Government at Tokyo the expressions of opinion given by the Chinese Minister for Foreign Affairs. A few days later he called upon Mr. Lu Cheng-hsiang and notified him that not only did the Japanese Government object to the withdrawal of any of the demands, but insisted upon the whole of them being accepted. He intimated, also, that his Government regarded with displeasure the opinions in reference to the demands expressed by Mr. Lu Cheng-hsiang at the second conference. The Chinese still held out against accepting the twenty-one demands and this point was the subject of negotiations with Tokyo. The Chinese Minister at Tokyo was instructed to see Baron Kato, the Minister for Foreign Affairs, with a view to securing a modification of Japan's attitude. Prior to this the Chinese Government had informed Mr. Hioki that they were willing to negotiate in regard to ten of the demands. This the Japanese objected to, and the Chinese thereupon agreed to discuss two more, but refused to negotiate in regard to the balance. Pending a settlement of this question, the conference fixed for February 12, was postponed, and this gave rise to the circulation of rumours that negotiations had been broken off. On February 12, although no conference was held, the Chinese submitted to the Japanese Minister at Peking in writing, their opinion in regard to the twenty-one demands, with suggestions for modification. The Chinese Minister at Tokyo on Saturday, February 13, notified his Government that his interview with Baron Kato, had resulted in a direct refusal to modify the demands on the part of Japan.

ANALYSIS OF THE DEMANDS

The demands as they were originally presented may now be considered. In passing it may be mentioned that as far as our knowledge goes no such document has ever been presented to one sovereign state by another, unless it be the Note sent by Austria-Hungary to Servia. But in that case Austria-Hungary had a clear right to seek reparation for the murder of the heir-apparent, although it is generally admitted that she went too far. In the case of Japan's demands upon China, however, the latter country was entirely guiltless of offence; there was no shadow of excuse for the presentation of punitive claims. Perhaps the most important demand was:—

The Chinese Government agrees that no island, port and harbour along the coast shall be ceded to any third Power.

This is asking the Chinese Government to agree to the establishment of a Japanese protectorate over the Republic. Were China to agree she would sink into the condition of dependency upon Japan that overtook Korea prior to the annexation. It is quite true that other Powers have demanded the non-alienation of portions of China in which they were specially interested. For example, Great Britain in 1898 asked for and obtained an assurance that China would never alienate any territory in the provinces adjoining the Yangtze to any other Power, whether under lease, mortgage, or any other designation. A similar assurance was obtained by France in regard to the island of Hainan and territory bordering on Tongking, and a demand for a similar

guarantee in regard to Fukien made by Japan was acceded to in 1898. There is a vast difference, however, between a guarantee in regard to a region or province in which any Power has special interests and one in reference to the whole of China. Japan by making this demand is asking that the entire territory of China should be declared her sphere of influence and it will particularly be remarked that she leaves herself quite free to demand the lease or cession of any part of the Republic. This demand is a demonstration of Japan's intention to warn all the other Powers that she regards China as a closed Japanese preserve.

The four demands in regard to Shantung may now be considered. The proposal to throw open more ports to trade is not likely to meet with serious objection. If these ports are really opened to international trade it would be a good thing for China and for the Treaty Powers. But we next come to the demands:—

China shall agree to Japan taking over, in due time, all the rights and privileges possessed by Germany in the Province of Shantung, and,

China must agree to the building of a railway by Japan from Chefoo or Lungkou to join the Shantung Railway.

Japan here performs an act of cynical tergiversation. Hostilities were opened, Japan assured the world, in order to preserve the peace of the Far East, and on account of the obligations of the Anglo-Japanese Alliance. There was no whisper at that time that Japan intended to create a second South Manchuria in the historic province of Shantung. It is particularly to be noted that the Chinese inference is that the railway from Chefoo or Lungkou to Weihsen is to be built as a Japanese railway. That is equivalent to saying that the railway zone should be Japanese territory; the railway a semi-official Japanese Government concern, and that Japanese military forces should be employed to protect the line. There would be little objection to Japan demanding the right to finance the building of the line for the Chinese Government as has been done by other nations in other parts of China. But this Power that went to war to preserve peace in the Far East, and bound herself not to deprive "China or other peoples of anything which they now possess," which had no "ulterior motive," now comes forward with a demand that shows that her promises and pledges are simply "empty sound signifying nothing."

The demands in regard to South Manchuria and Eastern Mongolia are of such great importance that we repeat them *in extenso*:—

Control and administration of the Kirin-Changchun Railway to be taken over by the Japanese Government for 99 years.

The lease of Port Arthur and the term of lease of the South Manchuria and Antung-Mukden Railways to be extended to the period of 99 years.

Japanese subjects to have the right to lease or own land in South Manchuria and Eastern Mongolia for erecting buildings for the purpose of trade and manufacture or for farming.

The Chinese Government to obtain Japan's assent before granting the subject of a third Power the right to build a railway in these regions, or to make a loan with a third Power for the purpose of building a railway in these regions. Japan's assent must also be obtained if a loan is contracted for which the security is the local taxes of Eastern Mongolia and South Manchuria.

In these regions Japanese subjects shall be free to reside and travel and to engage in business and manufacture of any kind whatever.

The Chinese Government must consult Japan first if China decides to employ advisers or instructors for political, financial and military purposes.

Japanese subjects shall be granted the right to work mines in these regions, the localities of the mining areas to be jointly decided upon by the two Governments.

Some of these demands were to be expected. Possibly if Japan had confined herself to the request that the lease of the Liaotung Peninsula and the term of the South Manchuria Railway should be extended she would have received moral support from quarters whence she is now regarded with undisguised aversion. The claim that the Kirin-Changchun Railway, a Chinese Government line, should be handed over to Japan for 99 years marks the zenith of Japanese audacity. There has been no war with China in the immediate past. Japan is not imposing terms of peace upon China. Her only concern, so she has assured the world, is to preserve peace in the Far East and to

fulfil her engagement with Great Britain. How does robbing China of one of her railways conduce to either of these ends?

The Open Door Declarations

Japan has also apparently overlooked the Most Favoured Nation clause which appears in all the treaties with China. It reads, with unimportant variations:—

It is hereby expressly stipulated that the . . . Government and its subjects will be allowed free and equal participation in all privileges, immunities and advantages that may have been, or may be hereafter, granted by His Majesty the Emperor of China to the Government or subjects of any other nation.

But in these demands Japan plainly shows her hand. It has to be remembered that Japan was one of the Powers that accepted the Open Door Declaration proposed in 1899 by Mr. John Hay, then American Secretary of State. The undertaking given by each nation will be the better understood if we quote the correspondence:—

The open Door Declaration is founded upon the following letters;—Letter from Mr. Hay, American Secretary of State, to Mr. White, American Ambassador to Germany.

Department of State,
Washington, September 6, 1899.

Sir,

At the time when the Government of the United States was informed by that of Germany that it had leased from His Majesty the Emperor of China the port of Kiaochow and the adjacent territory in the province of Shantung, assurances were given to the Ambassador of the United States at Berlin by the Imperial German Minister for Foreign Affairs that the rights and privileges insured by treaties with China to citizens of the United States would not thereby suffer or be in anywise impaired within the area over which Germany had thus obtained control.

More recently, however, the British Government recognized by a formal agreement with Germany the exclusive right of the latter country to enjoy in said leased area and the contiguous "sphere of influence or interest" certain privileges, more especially those relating to railroads and mining enterprises; but, as the exact nature and extent of the rights thus recognized have not been clearly defined, it is possible that serious conflicts of interests may at any time arise, not only between British and German subjects within said area, but that the interests of our citizens may also be jeopardized thereby.

Earnestly desirous to remove any cause of irritation and to insure at the same time to the commerce of all nations in China the undoubted benefits which should accrue from a formal recognition by the various Powers claiming "sphere of interests" that they shall enjoy perfect equality of treatment for their commerce and navigation within such "spheres," the Government of the United States would be pleased to see His German Majesty's Government give formal assurances, and lend its co-operation in securing like assurances from the other interested Powers, that each within its respective sphere of whatever influence:—

First.—Will in no way interfere with any treaty port or any vested interest within any so-called "sphere of interest" or leased territory it may have in China.

Second.—That the Chinese treaty tariff of the time being shall apply to all merchandise landed or shipped to all such ports as are within said "sphere of interest" (unless they be "free ports"), no matter to what nationality it may belong, and that duties so leviable shall be collected by the Chinese Government.

Third.—That it will levy no higher harbor dues on vessels of another nationality frequenting any port in such "sphere" than shall be levied on vessels of its own nationality, and no higher railroad charges over lines built, controlled, or operated within its "sphere" on merchandise belonging to citizens or subjects of other nationalities transported through such "sphere" than shall be levied on similar merchandise belonging to its own nationals transported over equal distances.

The liberal policy pursued by His Imperial German Majesty in declaring Kiaochow a free port and in aiding the Chinese Government in the establishment there of a custom house are so clearly in line with the proposition which this Government is anxious to see recognized that it entertains the strongest hope that Germany will give its acceptance and hearty support.

The recent Ukase of His Majesty the Emperor of Russia declaring the port of Ta-lien-wan open during the whole of the lease under which it is held from China to the merchant ships of all nations, coupled with categorical assurances made to this Government by His Imperial Majesty's representative at this capital at the time, and since repeated to me by the present Russian Ambassador, seem to insure the support of the Emperor to the proposed measure. Our Ambassador at the Court of St. Petersburg has in consequence been instructed to submit it to the Russian Government and to request their early consideration of it. A copy of my instruction on the subject to Mr. Tower is herewith enclosed for your confidential information.

The commercial interests of Great Britain and Japan will be so clearly served by the desired declaration of intentions, and the views of the Governments of these countries as to the desirability of the adoption of measures insuring the benefits of equality of treatment of all foreign trade throughout China are so similar to those entertained by the United States, that their acceptance of the proposition herein outlined and their co-operation in advocating their adoption by the other Powers can be confidently expected. I enclose herewith copy of the instruction which I have sent to Mr. Choate on the subject.

In view of the present favorable conditions, you are instructed to submit the above considerations to His Imperial German Majesty's Minister for Foreign Affairs, and to request his early consideration of the subject.

Copy of this instruction is sent to our Ambassadors at London and at St. Petersburg for their information.

I have, etc.

JOHN HAY.

LETTER FROM COUNT VON BULOW, HIS IMPERIAL GERMAN MAJESTY'S
MINISTER FOR FOREIGN AFFAIRS, TO MR. WHITE

(TRANSLATION.)

Foreign Office,
Berlin, February 19, 1900.

Mr. Ambassador. Your Excellency informed me, in a memorandum presented on the 24th of last month, that the Government of the United States of America had received satisfactory written replies from all the Powers to which an inquiry had been addressed similar to that contained in Your Excellency's note of September 26 last, in regard to the policy of the open door in China. While referring to this, Your Excellency thereupon expressed the wish that the Imperial Government would now also give its answer in writing.

Gladly complying with this wish, I have the honour to inform Your Excellency, repeating the statements already made verbally, as follows. As recognized by the Government of the United States of America, according to Your Excellency's note referred to above, the Imperial Government has, from the beginning, not only asserted, but also practically carried out to the fullest extent, in its Chinese possessions absolute equality of treatment of all nations with regard to trade, navigation, and commerce. The Imperial Government entertains no thought of departing in the future from this principle, which at once excludes any prejudicial or disadvantageous commercial treatment of the citizens of the United States of America, so long as it is not forced to do so, on account of considerations of reciprocity, by a divergence from it by other governments. If, therefore, the other Powers interested in the industrial development of the Chinese Empire are willing to recognize the same principles, this can only be desired by the Imperial Government, which in this case upon being requested will gladly be ready to participate with the United States of America and the other Powers in an agreement made upon these lines, by which the same rights are reciprocally secured.

I avail myself, etc.

BULOW.

But this was not the only occasion that Japan pledged herself to the principle of equal opportunity in China. In the agreement relating to China signed by Russia and Japan in 1907, Article 2nd reads:—

The two High Contracting Parties agree to recognise the independence and the territorial integrity of the Chinese Empire, and the principle of equal opportunity for the commerce and industry of all nations in the said Empire, and they engage to uphold and defend the maintenance of the "status quo" and the respect of that principle by all the peaceful means possible to them.

That engagement was sufficiently explicit. When we turn to the Anglo-Japanese Alliance signed in London on July 13, 1911, we find that the preamble and first article read thus:—

The Governments of Great Britain and Japan, in view of the great change that has taken place in the political situation since the present Anglo-Japanese Agreement was concluded on August 12, 1905, and believing it to be conducive to the general peace and security to amend the said Agreement and adapting it to the changed conditions, have agreed upon the following stipulations in the place of the said Agreement, which have the same objects as the present Agreement, that is to say:—

A.—The consolidation and maintenance of the general peace in the regions of Eastern Asia and of India;

B.—The preservation of the common interests of all Powers in China by ensuring the independence and integrity of the Chinese Empire and the principle of equal opportunities for the commerce and industry of all nations in China;

C.—The maintenance of the territorial rights of the High Contracting Parties in the regions of Eastern Asia and of India, and the defence of their special interests in the said regions:—

Article 1.—It is agreed that whenever, in the opinion of either Great Britain or Japan, any of the rights and interests referred to in

the preamble of this Agreement are in jeopardy, the two Governments will communicate with one another fully and frankly, and will consider in common the measures which should be taken to safeguard those menaced rights or interests.

Again in the Agreement between Japan and the United States signed on November 30, 1908, the following is one of the clauses:—

The policy of both Governments, uninfluenced by any aggressive tendencies, is directed to the maintenance of the existing "status quo" in the region above-mentioned (the Pacific Ocean) and to the defence of the principle of equal opportunity for commerce and industry in China.

This is reaffirmed in another clause:—

They are also determined to preserve the common interests of the Powers in China, by supporting by all pacific means at their disposal the independence and integrity of China and the principle of equal opportunity for commerce and industry of all nations in that Empire.

Japan has unequivocally accepted the principle of equal opportunity in China. She has given at least four solemn engagements to respect that principle. Yet what do we find? We find that she is now engaged in endeavouring to bully China into giving her "spheres of influence," where the Open Door is not to obtain, in South Manchuria, in Eastern Mongolia, in Shantung and in Fukien. Her pledges, her promises, are by her own showing worthless "scraps of paper" to be torn to shreds and scattered to the wind.

In regard to Fukien Japan demanded:—

In the Province of Fukien Japan shall have the right to build railways, work mines, construct harbour works and in case foreign capital is required Japan shall be first consulted.

This is an endeavour to translate Japan's nebulous claim to Fukien as a "sphere of influence" into definite terms. It is another negation of her undertaking in regard to the Open Door. In view of certain negotiations which took place last year this demand is directly aimed against America.

Japan's ally, Great Britain, will probably take especial interest in the demands in reference to the Yangtze region. Let us repeat them:—

The Hanyehping Company shall be made a joint concern of Japan and China, and China, without the previous consent of Japan shall not dispose of her interest in the Company.

All other mines connected with the Hanyehping Company and mines in the neighbourhood of such mines cannot be worked by persons outside the Company without the Company's permission and the consent of the Company must be first obtained for any mining operation that directly or indirectly affecting the interests of the Company.

China agrees to Japan's right to build a railway connecting Wuchang with Kiukiang and Nanchang. Also a line between Nanchang and Hangchow and a line between Nanchang and Chaochoufu.

Great Britain has always been presumed to possess special interests in the Yangtze Valley. It was British capital and British enterprise that opened this great region to the trade of the world. So well was it understood that Great Britain possessed special rights in the Yangtze Valley that in the Scott-Mouravioff Agreement of April 28, 1899, concluded at a time when relations between Great Britain and Russia were far from cordial, the latter country engaged:—

"not to seek for her own account, or on behalf of Russian subjects or of others, any railway concessions in the basin of the Yangtze.

This was an acknowledgment by a country then on no particular terms of amity with Great Britain of her privileged position in this region. Yet, now Great Britain's ally, Japan, demands from China rights which, if granted, would prevent the employment of British capital in one most important industry and would inflict an irreparable blow upon British trade. It is believed that Japan demands that the railways she seeks to construct should be Japanese railways and not Chinese Government lines. The audacity of this demand, the cynical disregard for the rights of China and of Great Britain, show the lengths to which Japan's inordinate ambition will carry her. When the facts are thoroughly understood in Great Britain it may be anticipated that there will be an outburst of indignation that will cause even the War Party in Japan to think.

The methods of the feudal robber baron, who from his mountain fastness was wont to swoop on the peaceful peasantry

on the plains below and supply his necessities by pillage and plunder, are obsolete to-day. The methods of mediævalism are an anachronism in the twentieth century. A Nation that callously affronts friend and foe is inviting disaster and the invitation is not likely long to be unaccepted.

Conscious of ill-doing, aware perhaps that this time her chauvinistic spirit has carried her too far, Japan has been attempting to delude the world. Encouraged by former success in hoodwinking the Press of America and Great Britain she has essayed once more by the devious methods practised in the past to sway the world's opinion in her favour. The Japanese Embassy in London, speaking through *The Times*, ridiculed the statement that Japan had presented oppressive demands and threw all the blame upon China.

It was declared that only eleven demands, and not twenty-one had been presented. This perversion of the truth was also communicated to the Foreign Offices of the Powers interested in China with which Japan had diplomatic relations. This communication to the Powers omitted some of the most important demands and conveyed a wrong impression in regard to others. Japan stated that her demands consisted of the following:—

I.—In relation to the Province of Shantung.

- 1.—Engagement on the part of China to consent to all matters that may be agreed upon between Japan and Germany with regard to the disposition of all rights, interests and concessions, which in virtue of Treaties or otherwise Germany possesses in relation to the Province of Shantung.
- 2.—Engagement not to alienate or lease upon any pretext the Province of Shantung or any portion thereof and any island lying near the coast of the said Province.
- 3.—Grant to Japan the right of construction of a railway connecting Chefoo or Lungkow and the Tsinan-Kiaochow railway.
- 4.—Addition of open marts in the Province of Shantung.

II.—In relation to South Manchuria and Eastern Inner Mongolia.

- 1.—Extension of the terms of the lease of Kwantung, the South Manchuria Railway, and the Antung-Mukden Railway.
- 2.—(A). Acquisition by the Japanese of the right of residence and ownership of land.
(B). Grant to Japan of the mining rights of mines specified by Japan.
- 3.—Obligation on the part of China to obtain in advance the consent of Japan if she grants railway concessions to any third Power, or procures the supply of capital from any Power for railway construction or a loan from any other Power on the security of any duties or taxes.
- 4.—Obligation on the part of China to consult Japan before employing advisers or tutors regarding political, financial or military matters.
- 5.—Transfer of the management and control of the Kirin-Changchun Railway to Japan.

III.—Agreement in principle that, at an opportune moment in the future, the Hanyehping Company should be placed under Japanese and Chinese Co-operation.

IV. Engagement in accordance with the principle of the maintenance of the territorial integrity of China, not to

alienate or lease any ports and bays on, or any island near, the coast of China.

It will be particularly remarked that Japan did not disclose the fact that she asked China to agree not to alienate or lease any ports or islands to any third Power, clearly reserving to herself the right to demand such alienation if she thought good. Neither did Japan disclose the fact that in regard to the Hanyehping Company she asked China to agree to prevent Great Britain or any other country carrying on mining operations in the Yangtze Valley. The inspired communications to the Press and to the Treaty Powers made no reference to the demands in regard to Japanese political, financial and military advisers; to the demand for the right of ownership of land in the interior of China; to the demand for Japanese administration of the Chinese police in certain localities; to the demand that Japan should supply over fifty per cent of the munitions of war required by China, or should establish an arsenal in China; to the demand for railways in the Yangtze (which would have been particularly interesting to Great Britain in view of Russia's acknowledgment of Great Britain's exclusive right to conduct railways in this region); nor to the closing of the Door in Fukien. Japan fondly imagined that she could nobble the Press of the world and frighten China into silence. She has made a great mistake.

Japan has denied that she has put forward demands that subvert the sovereignty of China or vitiate in any way the treaty rights of other nations. The onus of proof is upon Japan. It would be a simple thing for her, with the concurrence of China, to publish her original demands and set herself right with the world. Dare she do so? She knows thoroughly well that she dare not; that her attitude has been the negation of all that is decent in diplomacy, an exhibition of a national lack of morality that one might expect to find among the Bushmen of South Africa, but not among a people who boast of their devotion to Bushido—the creed of the chivalrous.

Japan is standing at the Bar of the Court of the Nations, brought there, not by the International Policeman, but by her own actions. What will she plead? But lately admitted to the circle of nations whose voice determines the destiny of the world, she assumed not only the rights, but the responsibilities, of that exalted position. How has she discharged those responsibilities? In what way has she added to the advancement of international peace and prosperity? Has she been true to her friends, courteous to the weak, courageous to the strong? In the depths of her conscience can she say that she has acted in the splendid spirit of the Samurai of which we wrote lately when we refused to believe the charges of bad faith brought against her? In what way has she justified those who believed in her and gave expression to that belief?

Metaphorically speaking, Japan has her feet upon the brink of a precipice. Below her surges the Sea of International Execration. Will she pause and retrace her steps while there is still time, or will she blindly step forward and disappear, never to emerge except as a pariah among the Powers? The choice is hers to-day, and upon that choice depends her future weal or woe.

JAPAN AT TSINGTAU AND AMERICAN POLICY

BY LEWIS EINSTEIN, FORMERLY FIRST SECRETARY OF THE AMERICAN LEGATION AT PEKING.

(From the January Journal of the American Asiatic Association).

If the Great War is likely to affect the future of the United States, in more ways than is commonly realized, the Japanese siege of Tsingtau has perhaps been the first event to awaken our appreciation of the different points of contact with its political aspects. The excitement provoked by its news has fortunately subsided before statements from Washington that in view of assurances received, there existed no cause for apprehension. It can hardly be doubted, however, that greater misgivings are entertained as to the future, than could officially be admitted. Whether these are justified or not will depend largely on the policy we shall pursue.

German indignation at the siege is readily comprehensible. Berlin had been reconciled to the temporary loss in case of war of all her other colonies. Firm confidence prevailing as to the outcome, it was felt that the peace negotiations would restore these with interest. But at Kiau-Chau the situation was different. It had been a pet of recent years, upon which

forty million dollars are said to have been lavished. No less was hoped from it as a center of infiltration than as a colony. To Germany, perhaps, more than for any other country, the future of China was indifferent. While ready to commit herself to the "Open Door" in order to associate her diplomacy with ours, her predilections, unlike our own, were by no means exclusively in that direction. With characteristic realism she was prepared to benefit either by that or else by a reversion to the "Spheres of influence," almost without preference as to which prevailed. The important thing was not the policy but the benefit. If China attempted reconstruction, Germany was ready at all times to lend her assistance toward a military reorganization. Economic advantages and Krupp contracts were always certain to follow, while the hope could even be entertained of finding in a strong China, a new and greater Turkey able to act as a partial counterpoise to Russia, and perhaps eventually to menace even India.

Should, however, the long threatened break-up of China become imminent-Tsingtau, instead of a wharf became the kernel for a future German colonial empire which might extend beyond Shantung to embrace Honan and Shensi. The exceptional favor shown to this tiny colony of barely two hundred square miles, all points to the double intention of utilizing it intensively, whatever occurred.

The German plans had taken into account a defense against all the world except Japan. The strength of fortifications around Tsingtau coupled with the naval forces in permanence there, rendered a successful siege practically impossible for any other nation to undertake. To its considerable garrison could be added thousands of German reservists scattered throughout the Far East and ordered to report there in case of war. Russia might possibly have attempted such capture aided by the British Far Eastern Squadron. But Germany knew that Russia would not do so because of her diplomatic arrangements with Japan. Having been driven out of Port Arthur, it was not to be supposed that she would be allowed to obtain a new foothold opposite Korea. Anger against England for having supposedly incited Japan was the more violent because of the latter being the only country except ourselves to which Germany could not expect to dictate terms, even though victorious in Europe. To recover Tsingtau another war would be necessary which became impossible without a base in the Far East for naval operations. Hence the indignation at what is realized as a permanent loss and probable death blow to German political ambitions in China.

REGRET MAY BE INOPORTUNE

Viewed in this light it may be that our regret at seeing Japanese mastery exchanged for German is inopportune. We have, perhaps, allowed ourselves to be unduly impressed in the past, at the assistance occasionally rendered by German diplomacy in the Orient, without appreciating the companionship its isolation sought, or the purely opportunist nature of its objectives. It was wise to avail ourselves of it but wiser still if we kept eyes as well as door open in China. Certainly, the disappearance of German rule is, even for us, no unmixed evil. The elimination of a political foothold in a colony containing the necessary base for vast political ambitions, should rather prove welcome, in checking a permanent temptation and forcing Germany to henceforth support in all sincerity and without ulterior purpose the "Open Door" policy and the integrity of China.

The substitution of Japan is less desirable though by no means unexpected. Assurances have apparently been given by Tokio of the intention to restore the territory to China, but it is doubtful if this will comprise more than the vague acknowledgment of sovereignty. Our objection lies in change of masters, and seeing a nation already powerful on the Asiatic mainland increasing its prestige and its holdings. Unless British participation in the siege has been sufficient to exercise a countervailing restraint it is not probable, after the sacrifice of life and treasure which the capture of Tsingtau must entail, that the territory will be restored to China. Japanese diplomacy is a past master in the art of amphibious arrangements characteristic of the East. If it is to be judged by its previous record in the Liao-tung peninsula, unless it should demand elsewhere equivalent compensation it will be more inclined to take over the long lease on which German tenure reposed. Reiterating previous assurances regarding the "Open Door" and reaffirming respect for the integrity of China, it probably will take calm possession of its conquest and proceed to develop the careful German beginning in the same systematic way as in Korea and Southern Manchuria. The problem to realize is the extent to which this occupation affects us and what course of action commends itself in consequence.

Our interest in China rests on various foundations. In addition to the desire for trade which already a century ago attracted the Boston clippers to Canton, a strong American moral influence exercised through educational, philanthropic and religious institutions has acted as a sentimental tie. We felt our ability to perform civilizing service and a wise record of a territorial disinterestedness proved the most convincing argument for our sincerity in dealing with a proud people. It has repeatedly been noticed that the only foreign stamp which left permanent impress on Chinese educated abroad was ours. Such confidence and respect has been for us and should remain a national asset.

China, moreover, has been the earliest point of departure for our diplomacy from its previous exclusive attention to the Monroe Doctrine. For the second time an American impress was given to a former British suggestion, and in advocating the "open door" John Hay achieved our first important diplomatic victory outside the Western Hemisphere. It is only natural that the various sentimental and traditional interests possessed in the Far East should confirm the wish to preserve a policy comporting no selfish advantage, and as much in the interests of China as to the world at large. But no policy can be judged exclusively on its merits, or without regard to the risks it comports. However great our sympathy or our readiness to assist China, it is apparent that American public opinion would rightly never countenance a war undertaken for the sole purpose of defending Chinese integrity or the "open door" against attack. Our diplomacy must necessarily stop short at the point beyond which it requires armed support.

UNDERRATED POWERS' INFLUENCE

The commonplace nature of this remark becomes less obvious when confronted with the extraordinary measures which not very long ago had characterized our Far Eastern policy. The successive steps taken in attempting to neutralize Manchurian railways had as their chief result to cast suspicion on our motives, and reconcile two adversaries who preferred to divide their spoils rather than abandon them in their opinion for our benefit. In the cognate venture of the so-called Chinchow-Aigun railroad which was to run parallel to the Russo-Japanese road, although we associated a British private enterprise with our own, and unselfishly allotted to it the task of construction, while we preserved the less desirable

financial arrangement, the brunt of the diplomatic battle and defeat fell upon us. Our error in attempting both came from underrating the influence of other powers, and overemphasizing the special importance of Manchuria by believing that if it could be saved, China would at once be put on her feet. In reality the canker lay far deeper. The introduction of American interests into the three Manchurian provinces could have had but slight effect in assisting the then Middle Kingdom, but might have proved far more dangerous to us than at the time was realized. Fortunately our ill success proved our salvation. We only deceived ourselves through magnifying the utility of a railway to arrest Chinese decay, and gave unnecessary offence at both Petersburg and Tokio.

Had the problem been presented in a somewhat different light, it is probable that we might have been spared rebuffs and accomplished something more durable for the purpose in view. The question was not how we were going to save China against Russian and Japanese aggression, but if China would be able to save herself from her own disintegration and in what manner could we best assist her without incurring undue risk. Moreover, if all our efforts should prove partially or wholly ineffectual how could we secure the necessary freedom for American trade and the continuation of American influence in legitimate fields of development.

If this is a fair approximation, steps of a different kind had to be pursued, which involved perhaps a certain amount of necessary disillusionment. There can be no doubt that among the reasons for American popularity in China at the time of our activity in Manchuria, had been a widely diffused idea prevailing among the young Chinese nationalists, though its source was hard to detect, that we were ready to assist them with our armed strength against Japan. The absurd notion of a Sino-American alliance was even mooted, and not only on the Eastern Shore of the Pacific. It was distinctly unfortunate for hopes of this kind to be aroused though through no fault of the State Department. While apparent temporary advantages may have been the immediate consequence, the keen disappointment certain to follow the discovery that our loudly announced friendly intentions stopped short at the brink of danger, was not conducive to increasing Chinese confidence in the United States. So far as even unconsciously our action lent itself to such construction it was neither adroit nor honest.

After the eccentricities of these efforts in Manchuria it was necessary to re-establish confidence, and a fortunate radical change soon came over our policy. We began to realize that the problem was less one between helpless China and ourselves, than between ourselves and the other powers. Wisely, we set about to remedy previous errors, by arriving at a frank understanding with the nations of Europe and Japan. The new agreements were based upon the principle of co-operation over railway enterprises and a currency loan. Association thus took place in a practical way with powers whose intentions were in certain cases less altruistic than our own but whose possible unfriendliness could be moderated by our influence and deviated by the prospect of financial advantage. Without risk of any kind we were able in this manner to render real service to China by standing on a footing of equality, and avoiding all semblance of grasping predominance through the pursuit of exclusive advantages. Judged by the tests of diplomacy, this new policy was eminently sound and could it have been persevered in, should have accomplished the purpose desired.

BANKERS WELCOMED WITHDRAWAL

From a domestic point of view, however, a grave initial mistake had been made by unduly restricting the basis of our financial force, instead of making it representative of the country at large. This error had originated at the time of taking up the proposed enterprises in Manchuria and had unfortunately remained uncorrected when our policy changed and broadened. A semblance of justification was thereby given to attacks made against "dollar diplomacy" and the supposed unholy alliance between the State Department and Wall Street. While the motives of both were above suspicion, yet the country, ill informed as to the situation, and with insufficient attention paid to its legitimate demands for information, turned these into violent criticism. The bankers, who had hitherto realized no advantages, were only too anxious at a time of financial stringency and darkened horizon to terminate an enterprise which had been the source of much annoyance without hope of commensurate benefit. Having undertaken the work largely as the result of an appeal made to their patriotism, they found their motives misconstrued and sinister intentions most unjustly lent them. Their desire coincided with that of Mr. Wilson who, newly inaugurated, was eager to avoid all semblance of intimacy with the financial forces of New York. Almost the first act of his administration was without further consideration, to put an end to the association with the bankers, and as a direct result of this, with the somewhat astonished foreign powers in co-operation with whom we had been working. The aspects of the question so far as they affected our broader interests in China or the future of American policy, were all waived without more ado. Mr. Wilson thus played unconsciously into the hands of a Wall Street which concealed its gratitude for rescuing it from an unprofitable contract, but whose dupe he has been in this perhaps more than he has ever suspected. In defence of his position Mr. Wilson came out with a statement expressing fear lest the continuation of our previous policy might imply touching near to the administrative independence of China. It is not unlikely that greater familiarity with the question than the time at his disposal permitted, would have convinced him that the administrative independence of China had so long been endangered and possessed so little inherent vitality that the possibility of any collective control, far from increasing the peril, lessened it; and that we neither benefited China by withdrawing her only disinterested friend, nor ourselves in the future economic development of the Far East.

Once more we reverted to our ancient haphazard position of uncertainty veneered by a certain ostentation of proffered services toward

China, to bring our diplomacy at least superficially into line with present day fashion. But the value of such services in excess of what had previously been accomplished, has as yet not transpired, while our own benefits have failed to impress themselves on the layman. Without the strain of a European crisis the disadvantages of our position would probably have become far more noticeable. As it is, we find ourselves perplexed in our diplomatic isolation at a time when Japan is about to occupy Tsingtau. Not wishing to make too active remonstrances which might cause us to drift toward an impossible alliance with Germany, we are obliged to accept at their face value such assurances as Japan has seen fit to give. Few things so certain, as that for the present we cannot do otherwise. The future of Tsingtau will, however, largely depend on our policy at this time. For the present, Chinese recovery of ceded rights need not be considered, as provisionally at least, remaining outside the realm of practical politics. The actual question must regard Tsingtau not as an isolated instance, but as part of a situation embracing the full extent of our relations with Japan, and which involves a frank recognition of the existing position.

SHOULD DEMAND ONLY FAIR PLAY

The questionable expediency of badgering Japan because of her action in Manchuria has already been noticed. Restraints of trade by her agents there, have more often been alleged than proved. Certainly her underselling us in the piece goods business which was long a favorite grievance had rather been due to greater economy of distribution and sale, than to surreptitious causes. Our frequent complaints were not always justified and contributed not a little to the unfortunate atmosphere of irritability which has arisen. On our own side of the Pacific we are compelled by urgent reasons in many cases above our control, to adopt certain measures which even if warranted cannot avoid giving legitimate offense to a proud nation. But while aiming to restrict such unpleasantness within as narrow limits as we can, and wherever possible to remove the sting of specific legislation by wise exceptions, it is the height of folly for us in isolation to seek gratuitous grievances in what after all are regions of secondary importance. Could we only realize it, we would see that our main interest lies rather in the conditions of Japanese stewardship of her Chinese possessions, and in demanding that such territorial encroachments should be administered according to recognized principles of equity and fair play. In a nutshell, we cannot prevent the decay of China, least of all with the means we are willing to employ. What can be done is to demand that such territorial encroachments as are unavoidable should respect the ultimate hope of reversion to China, and the rights of neutrals.

It is plain that such request on the part of our diplomacy would have far more chance of success if it were presented by us not as an isolated power, but as a member of a group of nations with more or less common interests. If the assurances which Japan has voluntarily given regarding her future attitude at Tsingtau should cease to be as satisfactory in the future as they are now declared, she would be more inclined to resent demands for explanation or remonstrances coming from us singly than if we acted in unison with other nations. More than this, Japan forming part of a concert of which we also were a member, would be likely to refrain from acts of a nature giving umbrage, or lending themselves to justifiable criticism.

In spite of the present war, the principle of concerted action in diplomacy is no passing phase nor will any millennium restore the splendors of isolation. In a survey of the future, unless we are willing to subscribe to the lessening of means of communication, it is apparent that nations will become more, rather than less connected, and as such will often find it advantageous to pursue identical lines of policy, especially in Oriental countries. The marked reluctance to enter into any concerted action involving the slightest responsibility has been among the most pronounced fallacies of much American diplomacy in the past. While endeavoring thereby to secure a moral sanction for our interpretation of the Monroe Doctrine, it failed utterly to accomplish this, and imposed on our policy a rigidity and absence of suppleness which deprived it in great measure of utility as a free instrument in sustaining oversea interests. In the Far East especially, as already noticed, we have, at times, maneuvered, because of this isolation, into positions involving considerable risk without substantial cause or hope of commensurate benefit. It is inconceivable that this could have occurred had our pace conformed itself to that of nations whose broad interests in China are not unlike our own though their policy is pliable enough to conform to the shaping of events. Paradoxically we have abandoned our former position of absolute security through a division of risks and benefits, to exchange it for an inferior one presenting far greater danger. The reason has been the present administration's unwillingness to continue its predecessor's tradition. Instead of sustaining such policy on a temporary scaffolding if necessary, and

reconstructing it along the lines desired, it swept away good and bad and destroyed in a moment the patient labor of years.

The war would, in any case, have for the time arrested the financial action of the concert in China. But though Germany must have provisionally withdrawn from it, there is no reason why we should have done so, or why we should not have been of real assistance to the numerous German interests desiring the preservation of the "Open Door." Such a position would in no way have been incompatible with the obligations of our neutrality. If we were acting to-day as the associates of Great Britain, France, Russia and Japan in the Far East, for the defence of certain policies subscribed to by all the powers, we would find ourselves in far better position to secure from the outset Japanese subscription to pledges which would make her tenure of Tsingtau less objectionable, and might thus even render distinct services to Germany. If, for instance, Japan were willing to demolish the existing fortresses and not to erect others, to maintain the place as an open port without special advantage to her trade, to preserve the Customs control for the Chinese Maritime Customs, to internationalize railways and wharfs in the leased territory, the tenure would be less offensive than if it aimed at exclusive advantages. All, or the greater part of this could probably be effected if approached in time by friendly diplomatic negotiation and by making use of the good offices of Great Britain and Russia, powers which like ourselves have no wish to see a militant extension of Japanese influence on the mainland.

In considering the permanent aspects of our Far Eastern policy we must definitely admit that Japan has there, great and legitimate interests exceeding our own. Where we possess other fields for expansion she finds herself with a rapidly increasing population practically restricted for its outlet to the Asiatic mainland. If we place ourselves in a permanent attitude of blocking her oversea development, we envenom a situation already difficult and run the risk of bringing about a conflict from which the main benefits we shall derive, will have been the consciousness of the faultiness of our diplomacy and absence of our military preparation. Would it not be wiser to appreciate the necessary limitations of our action in China both in respect to the aid we may extend and the range of our interests. Such examination if sincerely made, must lead to the conviction that single handed we cannot save China nor, even were it feasible to maintain such predominance, would we be willing to incur the tremendous responsibilities of an action which must carry with it the hostility of every civilized power possessing interests there. No sane statesmanship could seek the doubtful pre-eminence of this nature.

Along more modest lines we possess ample scope for a moral and economic penetration which will not lead us to a precipice although permitting us to render real services to the Chinese. By aiming at equality but not superiority of rights and efforts, we revert to the farsighted policy of John Hay and eschew the extreme directions of a subsequent action which, save for a brief period, alternated between being overhazardous or unduly negative. In collaboration with other powers who in the past have subscribed to the "open door" principle, we expect them wherever their special interests may appear to clash with this, to maintain a certain standard of administration which will bear in mind the broad interests of all. Friendly moderation and counsel would thus aim to achieve what peremptory demand might fail to obtain. And in so doing by mitigating attempts at violence, by smoothing surfaces of friction and points of asperity, we would once more justify the confidence which other nations had previously entertained in the wisdom and disinterestedness of our Chinese policy. The fact that we ought to co-operate with foreign powers, far from signifying that we abandoned China, meant only that we preferred a conciliatory and diplomatic way of carrying out our policy, which would permit us to assume again in the future as in the past, the position of mediator between China and foreign powers. Our action whatever it be, is in reality of far less importance than the fact that it should not be dissociated from that of other nations. In spite of the delicacy of this role it is one which if properly understood should be productive of general benefit, and in its judicious application lies the surest hope for the salvation of China and its peaceful evolution toward order and progress. The more enlightened Chinese would soon realize that without asking the impossible, they were at all times certain to find in our diplomacy a moderating influence and a true friend.

It remains to be seen if Mr. Wilson will be farsighted enough to construct afresh what he had first demolished and rebuild the ruins of our former entry into the concert of nations which he so light-heartedly destroyed. This might be the easier for him to accomplish, as for the present, at least, there could be little question of any important financial action with its dreaded ramifications. The necessary steps before us now are almost purely diplomatic. Only by our willingness to seek the close co-operation of other powers in China, and especially of Japan, can her occupation of Tsingtau be indifferent to us.

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THE BANK OF CHINA

At this period when the Government of China is demonstrating a desire to reorganize its intricate financial affairs it is interesting to note that the Bank of China, a national Bank conducted on modern lines, is also undertaking reforms which are rapidly making for greater stability and prosperity. While the conduct of banking business according to Occidental methods by Chinese is practically in its infancy, the Bank of China and the Bank of Communications are institutions which have now become well-established and promise to be prosperous. The Bank of China, being the national bank, ranks first among foreign-style financial organizations in Chinese control, and while its past, owing to the excessive financial disturbance in the Republic, has not been strikingly progressive it is now being controlled by a Governor (Mr. F. M. Sah) and a Council which have successfully introduced methods calculated to give the institution a foremost place among the banks operating in China.

When the Bank of China was reorganized in 1913 the deposits amounted to \$17,000,000. By the end of the following year they had advanced to \$57,000,000, an increase of \$40,000,000. The cash reserve against notes was, in 1913, \$5,000,000, while in 1914 it reached \$20,000,000. Cash on hand, exclusive of the note reserve, amounted to \$3,500,000 in 1913, while in 1914 it advanced to \$15,500,000. The net profit in 1913 was \$280,000, while in 1914 it reached \$1,400,000. The business turnover is stated to have been well over two milliards of dollars in 1914, the number of branches operating in various parts of the country at the end of that year being over 70, and the employees about 1,000. Towards the end of the Chinese old year, in February, the branch offices of the Bank of China in Peking, Tientsin, Shanghai, etc., received fresh deposits of over \$7,000,000, and the Bank's note issue increased by nearly another \$2,000,000.

The Bank of China is destined to play an important part in the reorganization of the revenues of the country in the future. Already it is the bank of deposit in the interior for large collections of Salt Tax revenue, and it will also handle much of the revenue collected as Land Tax. In currency reform, too, it will figure prominently, as it already has done in connection with the efforts of the Government to ameliorate the distress caused by the over-issue of provincial bank notes and their consequent depreciation.

There is no reason why this and other banks should not progress. The Chinese have a singular aptitude for banking business, and with men such as the present Governor of the Bank of China in a position honestly to employ the talent available it would be surprising if the standard did not rise. President Yuan Shih-kai, too, is closely interested in the firm establishment of this national organization. To him, perhaps, is due the inauguration of the first national bank in China. When Viceroy of Chihli, His Excellency at the close of 1902, memorialized the Throne to establish a national bank at Tientsin, and his memorial being favorably received such a bank was later established, the first manager being Taotai Man Ching-fan. The bank participated largely in removing the financial disturbance in northern markets at the period, but for lack of a manager versed in modern methods of business the bank did not attain the standard aimed at by the then Viceroy.

Apropos this subject it is interesting to recall that bank forms were invented by the Chinese, Venetian merchants learning of them from the Chinese and transferring the knowledge to French, English and German merchants. The Chinese were also the first to use paper as money, and the adoption of this practice led to the establishment of banking in China. Peculiarly enough the chief banking was done in the old days by Shansi natives, and even to-day they rank as the foremost native bankers in the country. But they were transmission banks (hwei tui chwang) and not deposit banks, their fortunes being derived from salt and iron, both of which products, Dr. Edkins points out in his "Banking and Prices in China," have been exported from Shansi in unfailing abundance for more than two thousand years.

The adoption of modern methods of banking by Chinese is practically a recent development, their lessons being mostly derived from the success of the foreign banks operating in the Treaty Ports of China and at Hongkong. Many attempts to

establish banks have failed owing to possession of but rudimentary knowledge by those who launched the enterprises, but with the passage of years Government and private students have entered large foreign banks for thorough training, and many of them are now equipped to assist in the establishment of up-to-date institutions. The management of the Bank of China now sets out to demonstrate that it can be of national service and at the same time be useful as a model for others who have trodden the hard road of modern finance and stumbled. All those who take a sympathetic interest in the development of China will hope that this national institution will not only from a purely banking point of view fulfil the expectations of those who founded it, but will also prove of value to the country in the adjustment of the difficult financial and currency problems with which it is confronted.

CHINESE RAILWAYS AND THE WAR.

The European war is having a noticeable effect upon the revenue of railways in China. It is difficult to believe at first thought that such could be the case, yet it may be realised when it is remembered that railways in China derive most of their freight from cargo destined for export or from imports. While there is a large passenger traffic, and a large freight traffic in ordinary times, the bulk of the latter flows from the country to the coast. There is not a great deal of inter-station cargo traffic, though that is gradually developing. When the war broke out and over-sea traffic was interrupted products from the interior were held up for lack of markets, and there has been an aggravation of affairs owing to a lack of steamers. Silk, tea, and cereals constitute the chief exports, though there is a growing trade done in merchandise of various kinds. A large quantity of this trade is carried on railways, and the war has created a condition in which the producer finds it impossible to use as he might the means of transportation provided for him. The slump in imports owing to the war is also strikingly indicated by the Maritime Customs returns. At the end of 1914 the revenue received by that organization for the year was some Taels 5,000,000 lower than the record in 1913. This decline is likely to be increased this year owing to disturbance of markets, though the oceans are now less risky to travel over, so far as raiding German cruisers are concerned, than they were some months back.

We give below the returns from the various railways for the latter half of 1914. While the surplus totals \$4,609,315.85, it is some \$2,000,000 less than during the latter half of 1913. In the returns of the Peking-Mukden line a slump is also noticeable—there being about \$1,200,000 less than the net surplus for the same period of 1913. In some measure this is due, however, to an increase in the expenditure, that of 1913 being about \$3,000,000 while that for the latter half of 1914 was \$4,312,002.

The following are the rough figures for the period beginning July 1 and ending December 31, 1914.

Name of Railway	Revenue	Expenses
Peking-Mukden	\$6,810,762.09	4,312,002.20
Peking-Hankow	8,496,926.38	4,384,569.77
Tientsin-Pukow	2,750,000.00	4,434,701.89
Chengtingfu-Taiyuanfu..	882,124.19	928,438.00
Taokou-Chinghua	289,000.00	411,000.00
Shanghai-Nanking	1,542,150.00	1,890,536.83
Canton-Kowloon	385,000.00	863,259.49
Kirin-Changchun	351,800.00	353,700.00
Chuchow-Pinghsiang	211,400.00	216,100.00
Peking-Kalgan	1,345,262.00	584,382.00
Kalgan-Suiyuan Ext.	251,474.00	151,589.00
Kaifeng-Honan	520,000.00	817,928.00
Canton-Samshui	378,039.11	224,404.74
Changchow-Amoy	17,290.00	49,300.00
Total	\$24,231,227.77	\$19,621,911.92

THE FINANCES OF CHINA

Pessimists to the contrary notwithstanding, China's financial record for 1914 was excellent and her prospects for the present year are most encouraging. In some quarters it was thought that the inability to raise loans in foreign money markets owing to the war would so embarrass China that she would be unable to meet her foreign financial obligations. So far was this from being the case that she not only met all her foreign obligations due in 1914 promptly from her own resources, but has begun the year 1915 by setting aside ample funds to meet the requirements of internal loans.

From a document issued by the Department of Revenue on February 15 it is learnt that for the first seven months of 1914 the revenue from both the ordinary and the new taxes showed an encouraging increase over the receipts for a similar period in the years 1913 and 1912. During the latter five months, however, there was a great diminution both in imports and exports and consequently the Customs revenue was considerably decreased. If the promise of the earlier months had been fulfilled the Customs revenue would have shown a substantial and satisfactory increase over that obtained in 1913, but owing to the war and the consequent paralysis of trade, the end of the year witnessed a decrease of \$5,400,000 in the Customs revenue as compared with 1913. Another fact that was singularly unfortunate for China was the extraordinary high rate of exchange. China's foreign indebtedness has to be paid in gold and consequently she was compelled to pay at least a fifth more as a result of exchange being against her. Notwithstanding all this China was not only able to pay off all her foreign interest obligations but to keep in hand sufficient to meet interest charges falling due in January, 1915. The following table prepared by the Department of Revenue, shows how the foreign obligations were met:—

Loan Obligations. Receipts.—From sums allotted to meet the Loan Obligations by the Chief Commissioner of Maritime Customs from receipts of tax on foreign goods.....
Tls. 35,079,055.59

(In the above is included the interest on deposits of tax receipts in foreign Banks, to the amount of Tls. 49,151.99) From the seven Likin Stations under the control of the Chief Commissioner of Maritime Customs, specially set aside to meet Loan Obligations..... Tls. 2,338,600.00

Total Receipts..... 37,417,655.59
Payments. To Loan dues 25,468,302.07
To Indemnities due 11,949,352.52
Balance in hand 500,127.95

Indemnity Obligations.

Receipts. From balance of Loans Tls. 11,449,225.57
From proceeds of ordinary tax specially allotted to the indemnity funds (including Tls. 1,861,306.54 of old deposits and Tls. 4,159.52 of interest).. 6,205,525.00
From appropriation from Salt Revenue 9,869,172.48

Total Receipts Tls. 26,522,923.05
Payments.—To Indemnities 26,522,923.05

Cash Balance in Hand .. Tls. 500,127.95

Another most satisfactory indication of China's ability and willingness to meet her engagements is found in the redemption of a fifth of the Nanking 8 per cent. Military Bonds. On February 20 a public drawing was held in Peking and Bonds to the value of \$1,153,528 were redeemed. This must necessarily have a marked effect in increasing the belief of the Chinese themselves in the financial good faith of their Government. This will

be strengthened by the announcement recently published by Mr. Aglen, Inspector-General of Customs, to the effect that he had received the necessary funds for the service of the Domestic Loan of \$16,000,000 and the supplementary Loan of \$8,000,000, for the month of February.

REDEMPTION OF NANKING MILITARY BONDS.

The first drawing of the Eight Per Cent. Nanking Military Bonds for redemption, which took place at Chung Hua Men, Peking, on February 20 opens a new chapter in the economic life of China. The first domestic loan, known as the "Chao Hsin Loan," was not properly redeemed and the bad faith observed by the late Ching Dynasty in this connection had a disastrous effect on the national finances by destroying the people's confidence in the trustworthiness of the Government in financial operations. The drawing of bonds before the public on the present occasion demonstrates to the people in a practical manner that the Republican Government is sincere in its resolve to conduct business transactions such as the flotation of domestic loans along strictly business lines.

The gaily decorated pavilion that prominently rose to view in the outer palace compound on the Lunar New Year's Day did not signify as commonly supposed, a belated effort of the municipal authorities to augment the attractions of the old style celebrations, but that it was to be utilised for the drawing of bonds. The boldly displayed Chinese characters of the notice posted before the pavilion, coupled with the novelty of the event, attracted large numbers of curious spectators into the hall long before the appointed hour for the drawing. The weather was ideal and the sun reflected its beaming rays through the crisp atmosphere. The officials appointed to perform the various functions assembled on the platform at noon. They were Mr. Lu Hsueh-pu, Director of the Loan Dept., and all the members of the Department; Mr. Sah Fu-mou, Governor of the Bank of China; Messrs. Chen Ting-ming, Chien Mou-hsun and two others; Auditors of the Board of Audit, and several others from the Ministry of Finance and the Bank of China.

Mr. Sah carried to the platform the box containing lot-sticks, and

opened it in the presence of the Auditors, who examined the sticks. This done, the Auditors scrutinised the account books. Messrs. Lee Kuang-chi, Shen Chang-chi and two others, of the Ministry of Finance, together with Mr. Lai Kuan-chun and three others, of the Bank of China, who were appointed as drawers, then took their seats. Meanwhile, pamphlets containing the bond numbers corresponding with the 116 lots were distributed among the audience. In all, \$1,150,000 worth of Bonds were to be drawn that day.

As the clock struck one, the Band of the Peking Gendarmerie struck up lively tunes and the afternoon's proceedings began. Numbers of guests came in a steady stream and the hall was soon well packed. There were many foreign guests present.

Mr. Lu Hsueh-pu, Director of the Loan Dept., opened the proceedings with a speech, in the course of which he explained the origin and history of the 8 per cent. Nanking Loan, and outlined the purposes of the bond-drawing. He was followed by Mr. Sah Fu-mou, Governor of the Bank of China, who pointed out the significance of the occasion which bore testimony to the sincerity of the Government to meet its obligations to the people. At the conclusion of these two speeches, the drawing began, and the Band filled in the interval by discoursing selections of music. The recording accountants on the platform were kept busy in checking figures and attending to other matters. Bulletins in the form of large posters six feet square filled with Arabic figures were prepared and posted on the walls to announce the numbers drawn. In a short space of time the walls were covered with these large posters. It may perhaps be worth noting *en passant* that all these posters were written while the drawing was going on by a single person, Mr. Liang Yao-tsung, of the Loan Dept.

Minister Chow Tzu-chi and Vice-Minister Ching Shou-ling of the Ministry of Finance were also present. They received the delegates sent by the Governors of the various Provinces and held a lengthy conversation with them. At the close of the drawing, Mr. Yuan Chin-kai, the Delegate from Fengtien, and Mr. Lee Kuang-chi, of the Ministry of Finance, delivered speeches. Mr. Yang Tien-chi, one of the spectators present, also ascended the platform and spoke on the significance of the event from the spectators' point of view and concluded by saying that this occasion could not fail to leave a favourable impression on the people's mind regarding the credit of the Government. A group photograph of the assembly terminated the proceedings.—*Peking Gazette*.

PEANUT CROP IN SOUTH CHINA

Although peanuts, or groundnuts, are to be found in greater or less quantities throughout the Swatow consular district, nevertheless it can be considered as a crop of secondary importance only. Three varieties are known here, says Mr. Myrl S. Myers, American consulate, Swatow. The so-called native nut, which is scarcely larger than a pea, is now little cultivated, as its oil-yielding capacity is much inferior to the other varieties.

The varieties which are of commercial importance are locally called "small foreign" and "large foreign," the terms "small" and "large" signifying the principal difference. Although both varieties are sown in April, the harvest of the "small foreign" occurs in July and that of the "large foreign" about six weeks later, or in September. In harvesting, the plants of the former variety are pulled with the nuts attached, while in the latter the nuts must be dug. As to oil production, there is little difference, weight for weight, between these two varieties.

The principal districts of peanut cultivation are Cheng Hai, Chao Yang, Jao Ping, and Kityang. The "small foreign" crop, the harvest of which is about completed, is estimated to be between 60 and 70 per cent. of a normal yield. The reason for this partial failure is attributed to an insufficiency of spring rains and to damage done by the very heavy rains when the crop was approaching maturity. No crop statistics are available.

The exports from this port have been principally to Siam and the Straits Settlements. Peanut shipments were 1,228 tons in 1912 and 1,549 tons in 1913, while peanut-oil shipments totaled 1,645 tons in 1912 and 1,272 tons in 1913. It is stated that a considerable portion of the peanut oil which comes here from the Jao Ping district via Ungkung originates in the southern part of the neighboring Province of Fukien.

The present price of nuts of good quality delivered at Swatow is about \$1.50 Mexican, or \$0.69 United States currency, per bushel, unshelled. The oil is now selling for about \$20 Mexican, or \$9.16 United States currency, per picul (133½ pounds), and peanut cake, the oil having been expressed, at about \$6 Mexican, or \$2.75 United States currency, per picul. The cost of extraction is between \$2.30 Mexican, or \$1.05 United States currency, and \$2.40 Mexican, or \$1.10 United States currency, per picul of shelled nuts. For the average run of nuts about 100 catties (1 catty equivalent to 1½ pounds) of oil is obtained from

180 catties of shelled nuts. Antiquated methods only are used in expressing the oil.

It is the opinion of dealers that this year's acreage is about the same as the past few years. However, a report has been received from Ungkung that there seems to be a tendency to increase the acreage in the Jao Ping district. It might be mentioned here that it is in the Jao Ping district that the "large foreign" variety is chiefly grown.

Before the introduction of soya-bean oil some 40 years ago, peanut oil was largely used as an illuminant. Since then it has been employed principally for cooking. The nuts are also eaten roasted as in America.

APRICOT KERNEL PRODUCTION

The apricot kernels exported from China during the year 1912 amounted to 44,479 piculs, or 5,930,500 pounds. Of this amount 36,009 piculs, or 4,801,200 pounds, were exported from the port of Tientsin. Thus about 80 per cent. of the apricot kernels exported from China go through Tientsin. The two open ports in Shantung Province, Chefoo and Tsingtau, exported 620,800 pounds and 256,300 pounds, respectively. These exportations are practically all made to Europe—Germany, Great Britain, France, and Italy taking the largest amounts.

Of the 4,801,200 pounds exported from Tientsin in 1912, 3,199,400 pounds were sweet kernels, and 1,601,800 were of the bitter variety. The price of the sweet kernels, cracked and ready for shipment, is 40 to 45 Tientsin taels per picul, according to quality, which is equal to \$17.87 and \$20.10 gold per 100 pounds, respectively, at the rate of exchange 67 cents gold = 1 tael.

The price of the bitter kernels is much less, varying from 8 to 13 taels per picul, according to quality and market conditions. This is equal to \$3.57 and \$5.81 gold per 100 pounds, respectively.

The apricots ripen during June, and the shipping season starts about August 1, and continues through the remainder of the year. The apricots from which sweet kernels are obtained are larger than those from which come the bitter kernels. These apricots are not eatable. The largest quantities of them come from the districts of Yen Ch'ing Chou and Wan Ping Hsien to the north and west of Peking. The bitter kernels are produced in many districts throughout the Provinces of Chihli, Honan, and Shansi.

CHINA'S SALT ADMINISTRATION.*

During 1914 the net revenue derived from the salt tax in China reached the handsome total of Shanghai Taels 42,941,000 (or \$58,826,000) as against Shanghai Taels 12,890,000 (or \$17,670,000) in 1913. This result was more than twofold the estimate made by Sir Richard Dane on February 4, 1914, when, according to the Peking correspondent of *The Times*, he looked for a deposit in the banks at the end of the year of but \$24,000,000. At that period the Chief Inspector had every reason to be conservative, but his modest estimate by no means signalized the limit of his ambition nor marked the degree of his energy.

Both Sir Richard Dane and Mr. Chang-hu, the head of the Central Salt Administration—a gentleman peculiarly equipped by experience and talent for his onerous work—were on the warpath for results, and likewise determined to render unto Cæsar all they could find belonging to Cæsar, estimates notwithstanding. The result at the end of the year more than justified their skilful handling of intricate and delicate problems which critics, at the beginning of the attempt to effect a reorganization of the Salt Gabelle, unequivocally condemned as impossible of satisfactory solution.

Magnificent as is the result for the year, it would have been greater had not the revenues suffered seriously from losses due to depreciated currency at certain sources of collection. For instance, in Szechuan province the collections were paid in depreciated paper notes. A total face value of over \$7,000,000 was secured, but conversion into silver would have realized but about fifty per cent of the amount, and, when remitted to Shanghai, would have involved a still further loss in exchange into taels owing to the absence of proper banking facilities. The salt revenue therefore suffered a dead loss of something like \$3,500,000 in that province alone. In Canton the direct loss from the same cause was \$2,500,000, and in Honan it was \$1,500,000. Altogether a total of \$7,500,000 disappeared from the revenues collected, yet despite this and other difficulties the organization established by Sir Richard Dane and Mr. Chang-hu was able to obtain results such as had never before been known in the history of the Salt Gabelle in China, and which completely over-reached the anticipations of the Bankers and others who had reason to believe they knew the greatest expectations that could be entertained in connection with possibilities of reform.

In fact so dubious were the Bankers about the prospects of sufficient funds being derived from salt collections for the service of the Reorganization Loan, which was floated in 1913 and secured upon the salt revenues, that they had it stipulated in the loan agreement that pending the reorganization of the Salt Administration, the Provinces of Chihli, Shantung, Honan and Kiangsu should pay monthly into the Banks the funds necessary to meet the service of the loan. On their part the Bankers agreed that so soon as the revenue collection of the Salt Administration over a period of one year should be sufficient to cover the service of the loans and obligations secured thereon, including that of the Reorganization Loan of £25,000,000, together with a reserve fund sufficient to cover a further half-yearly interest coupon of the latter, the monthly contributions should be suspended. To the surprise of the Bankers the inflow of collections from the Salt Administration became so steady and of such volume that not only were they pleased to be able to agree to the suspension of the provincial contributions; but were able to release to the Government for the payment of loans, indemnity,† and administrative purposes something like \$42,000,000, and still have a balance in the banks of \$15,000,000 at the end of the year. Before the war broke out, too, they had expressed the confidence that the revenues of the Salt Administration were sufficient as security for still another loan. No greater testimony than that is needed to indicate

the efficacy of the reforms so far inaugurated or the potentialities of the Salt Administration as a steady source of revenue.

Not only was 1914 eminently satisfactory. This year is opening with the brightest prospects, and up to the 11th of February—the eve of the end of the lunar year, or the beginning of Chinese New Year as it is called,—the Bankers were in the happy position of being able to release to the Government for administrative purposes somewhat over \$10,000,000. This, and other sums which the Government had available from other sources of revenue, enabled the old year end to be met with equanimity and the new one to be faced with considerable satisfaction. There was no necessity to whip the impecunious devil round the financial post, as was done the previous year in an endeavor to raise the wherewithal to make ends meet.

One of the most striking feathers acquired for the cap of the Salt Administration in 1914 is that its net revenues topped the gross revenues of the Maritime Customs service by over Taels 1,000,000. The Customs service has always been looked upon as the chief stable source of revenue in China, and it has been, but now that the Salt Administration is displaying such splendid results the Customs will have to pay particular attention to its laurels. Those in charge of salt affairs have merely had their appetite whetted by results and as the reorganization has only commenced, practically speaking, they are determined to make the annual returns mount to the utmost possible extent. At least an additional \$15,000,000 is expected to be banked in 1915.

The chief improvements so far introduced are the method of weighing in from source of production and issuing salt; the systematizing of the accounts and the collection of the tax before the removal of salt for consumption from the depots. In the past taxes have been collected on occasions a year after salt has been removed or paid for in depreciated native orders or promissory notes. For 1915 the tax has been increased in several districts, but the increase in collections from that direction means a concurrent increase in expenditure upon an efficient service for the prevention of smuggling and fraud.

An improvement now being introduced, and one which will be of exceeding importance in establishing firm control over the product, is the construction of central depots in various districts for the storage of salt. In most places at present salt is stored in great heaps in open yards, sometimes covered with matting and sometimes not. It is proposed to do away with this crude system and replace it with modern storage, the advantages of which system need no dilating upon.

Another improvement that will gradually be undertaken, and one which is necessary, is the suppression of refractory commissioners in distant districts. Rules and regulations have to many of these officers no meaning; they reign in their sphere as independent beings, prompted to do so only because it has been the life-long custom heretofore; and printed rules are regarded by them only as so much paper gracefully contributed by Peking in a spirit of magnanimity to paste up the holes in the walls of their yamens. All these officials have so far deemed it necessary to do was to keep Peking quiet by forwarding small periodical contributions in the way of funds representing the proceeds of the salt tax. No proper accounts were kept, and confusion reigned supreme with the result that those responsible never knew exactly what the Salt Commissioner should account for. It is, of course, the knowledge of the existence of such things in the salt tax system of China that persuaded old residents that reform was impossible. But other problems of the kind have been met and solved, and we may soon see definite efforts being directed to the education of the recalcitrants in their specific duties. "Olo custom" is gradually being knocked on the head, and it will not be long before the tenacious old excuse is properly shrouded and relegated to the limbo if Sir Richard Dane and Mr. Chang-hu have their way.

The reorganization of the Salt Administration was, of course, stipulated in the agreement for the Reorganization Loan, signed on April 26, 1913. Sir Richard Dane acts as Chief Inspector under the Loan Agreement, with a foreign Co-Inspector, and various District Inspectors have since been appointed, their duties being laid down in precise regulations promulgated by the Chinese Government. In addition to his work as Chief Inspector,

*An illustrated historical sketch of China's Salt Gabelle prior to the reorganization at present being effected, was published in the FAR EASTERN REVIEW of December, 1912.

†The estimated annual charge on the Salt Administration is Haikuan (or Customs) Taels 20,751,000.

Sir Richard Dane also advises the Chinese Government on all questions of Salt Administration. Mr. Chang-hu is the Chief Commissioner, or Administrative Head of the Salt Administration, and he is also Chinese Chief Inspector under the Loan Agreement. The Central Salt Administration is the organ under which both these officers act, and the head of that Department is the Minister of Finance, at present Mr. Chow Tze-chi. If, for instance, Sir Richard Dane gives any advice to the Government and that advice is accepted it is the Central Salt Administration which issues the necessary orders to put it into effect.

The task of the District Inspectors is to supervise the weighing and issue of salt and to collect the revenue in the salt producing areas, or to supervise its collection. It was naturally a difficult matter to introduce this important change, but steady progress has been made. There was obstruction in many districts, and the old salt officials of Yunnan and Canton in particular sustained determined opposition to it, though they eventually capitulated. Through the District Inspectors it is hoped eventually to have a check placed upon every dollar collected as salt revenue and to have all the funds flowing in the proper channels, and under Government control.

A portion of the revenue collected in certain districts is sent forward by means of what are known as Transportation Agencies—(organizations which buy and convey the salt from the producing districts)—and is lodged in the foreign banks. Over this portion of the revenue the Central Salt Administration has not the same control as over the money collected by the District Inspectors, but plans are being introduced to rectify this state of things. If these plans are properly carried out the result will be a marked increase in the collections secured for deposit.

The Chief Inspectorate, as well as the District Inspectorates, is held responsible under the Loan Agreement for the salt revenue. The Inspectorates are to weigh and issue salt, and collect taxes, make deposits and proper disbursements, audit and report accounts, and render statistics. In accordance with the Loan Agreement all revenues are deposited in one of the nominated foreign banks and, if there is no foreign bank in a province, then in a branch of the Bank of China or the Bank of Communications. If there are neither of these banks available, which happens to be the case in a few places, then the funds are retained by a bank approved by the Group Banks.

In order thoroughly personally to understand the conditions existing in the various producing districts, Sir Richard Dane has travelled through and reported upon those of Manchuria, Shantung, Chihli, Kwantung and Fukien, and he is at present on an extensive tour which will take him through Yunnan and Szechuan provinces, and back down the Yangtze to Hankow. This first hand knowledge on the part of Sir Richard will be of immense advantage to the Central Government, and will enable him to introduce measures not only to enhance the collections but also to remedy many of the abuses of which so many complaints have been made in the past.

Altogether there are ten salt producing districts, namely Fengtien (Manchuria), Changlu (Chihli), Shantung, Liang-hwai, Liang-chi, Fukien, Kwantung, Szechuan, Ho-tung, and Yunnan. In each of these districts is established a District Inspectorate consisting of one District Inspector, and one foreign co-inspector, under whose control is a staff of Chinese assistants.

To facilitate the administration the salt-producing and salt-consuming provinces have been divided into two divisions. The first division is composed of the salt-producing provinces of Fengtien, Chihli, Shantung, Shansi, Kansu, Shensi and the northern part of Kiangsu, and the salt consuming provinces of Kirin, Heilungkiang, Honan and the northern part of Anhui province. The second division is composed of the salt-producing provinces of Hwai-nan in Kiangsu, Liang-chi, Fukien, Kwantung, Szechuan and Yunnan, and the salt-consuming provinces of Kiangsi, the southern part of Anhui, Hupeh, Hunan, Kwangsi and Kweichow.

The eventual perfection of the organization now in course of development under the able direction of Sir Richard Dane and Mr. Chang-hu will be a tremendous blessing to the Government, and the lesson already being learned from the work accomplished by the Central Salt Administration is to be applied to other sources of revenue, such as the Land Tax, so that the Government may reap the whole of the financial harvest that is its due.

LEATHER GOODS IN SIAM

The leather manufactures imported into Siam are classified by the customs under the heads of boots and shoes; saddlery; and leather manufactures, other sorts. The total value of these imports for the fiscal year ended March 31, 1913, was G. \$184,599, a decrease of \$455,148, as compared with the previous year. This large decrease appears to have been due to overstocking in the preceding year, and general trade depression in 1913.

The value of boot and shoe imports for the fiscal year 1913 was \$62,990, as compared with \$101,112 for the preceding year, a decrease of \$38,122. This decrease may also be accounted for by the increasing demand for the home-made shoes of the Chinese bootmakers, who have steadily improved the style and quality of their output; moreover, these articles are cheaper than the imported goods, and can always be obtained in sizes to fit or be made to order. The home industry in footwear is entirely confined to the above-mentioned Chinese handmade shoes, as there are no shoe manufactories in Siam using machinery.

Shoe imports from the United States showed a decline from \$1,403 in 1912 to \$1,117 in 1913. The superiority in style and durability of the American shoes, as compared with those of European and local make, however, is admitted, the only drawback being the higher price. As in former years, the heaviest shipments of footwear continue to come from the United Kingdom and Germany.

The saddlery imports have shown very little progress during the last five years, the total value for 1913 amounting to \$19,510, against \$15,889 for 1909. As in former years, most of these imports were supplied by the United Kingdom. Leather goods other than footwear and saddlery also showed a decline from \$237,761 in 1912 to \$102,158 for 1913.

The customs do not furnish any information as to the nature of the leather imports. However, as there are only one or two small tanneries in Siam, supplying sole leather only, the leather imports must consist chiefly of materials used by the Chinese bootmakers, such as sole leather, and uppers of calf, tan, glazed kid, etc.

HIGH LIFT TURBINE PUMPS.

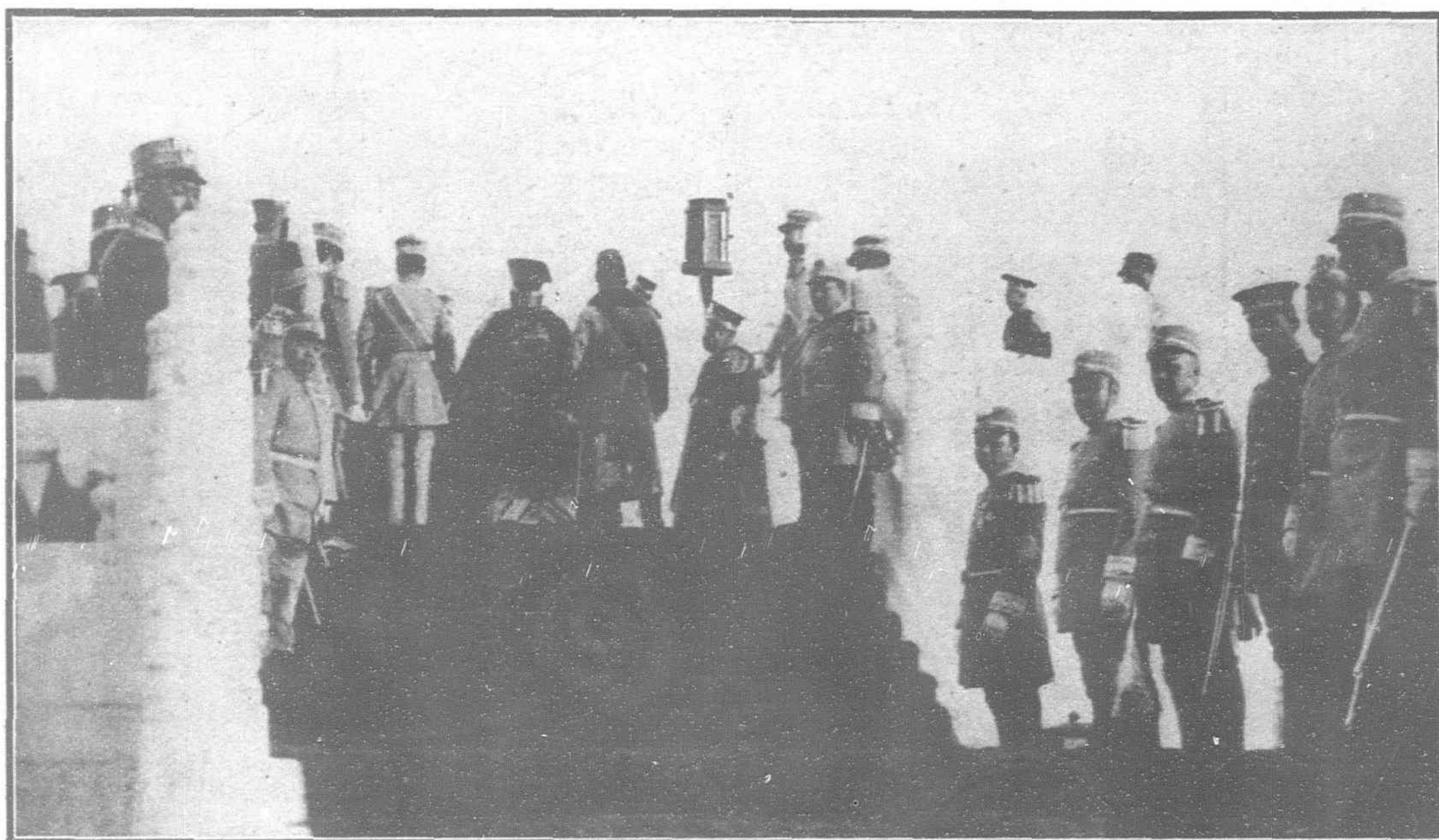
Messrs. Mather & Platt, Ltd., of Manchester, have just issued a new catalogue relating to their patent High Lift Turbine Pumps. It is a most attractive publication and gives very full details of the various types of pumps manufactured by the firm.

As in many other fields of engineering activity, Messrs. Mather & Platt were pioneers in the construction of pumping machinery. Following the invention of the Turbine Pump by Professor Reynolds in 1878, Messrs. Mather & Platt constructed the first pump of this type and, in the years immediately following, many of these pumps, widely known by the name of the "Mather-Reynolds" were installed for belt driving at moderate speeds. With the advent of the high speed electric motor and Steam Turbine the possibilities of direct driving Turbine Pumps were realised. It is due to this great advantage of direct driving, combined with their lower initial cost, greater adaptability, simplicity of operation, and small space occupied, that Turbine Pumps to-day hold the field as pumping machines.

After describing the special construction by means of which the efficiency and reliability of Messrs. Mather & Platt's pumps is attained, the list details and illustrates various types capable of dealing with a variety of duties. Amongst them are Horizontal High Lift Pumps, Colliery & Mining Pumps, Sinking Pumps, Single Chamber Pumps, Fire Pumps, Hydraulic & Boiler Feed Pumps, Automatically Operated Pumps, Well Pumps, High Lift Turbine Pumps applied to bore-holes, etc. The list contains descriptions of pumps which have been adapted for duties to which they were hitherto considered unsuitable, such as Hydraulic & Boiler feed purposes.

Recent experience has enabled Messrs. Mather & Platt to construct Rotary Pumps for extremely high pressures. Their adoption in collieries for different heads and for varieties of waters has consequently increased very considerably.

All who are interested in the transplanted water in bulk should apply to Messrs. Mather & Platt, Ltd., for a copy of this admirably compiled new pump catalogue.



President Yuan (Central Figure) during a period of the ceremony on the Altar of Heaven.

PRESIDENT YUAN SHIH-KAI AT THE ALTAR OF HEAVEN

BY FREDERICK MOORE

[EDITOR'S NOTE.—The following illustrated description of the most impressive ceremony performed in China is unique inasmuch as it is a record of the first time in history that the President of a Republic has performed rites at the altar of Heaven which hitherto have been reserved for Emperors, and likewise it is the first occasion, so far as we know, on which any foreigners have been witnesses of the ceremony. That distinction is enjoyed by Mr. Frederick Moore, who supplies this article, and Mr. John D. Zumbun, Photographer of Peking, who took the photographs. An interesting point about the latter is that they were taken at seven o'clock on the morning following the shortest day in the year.]

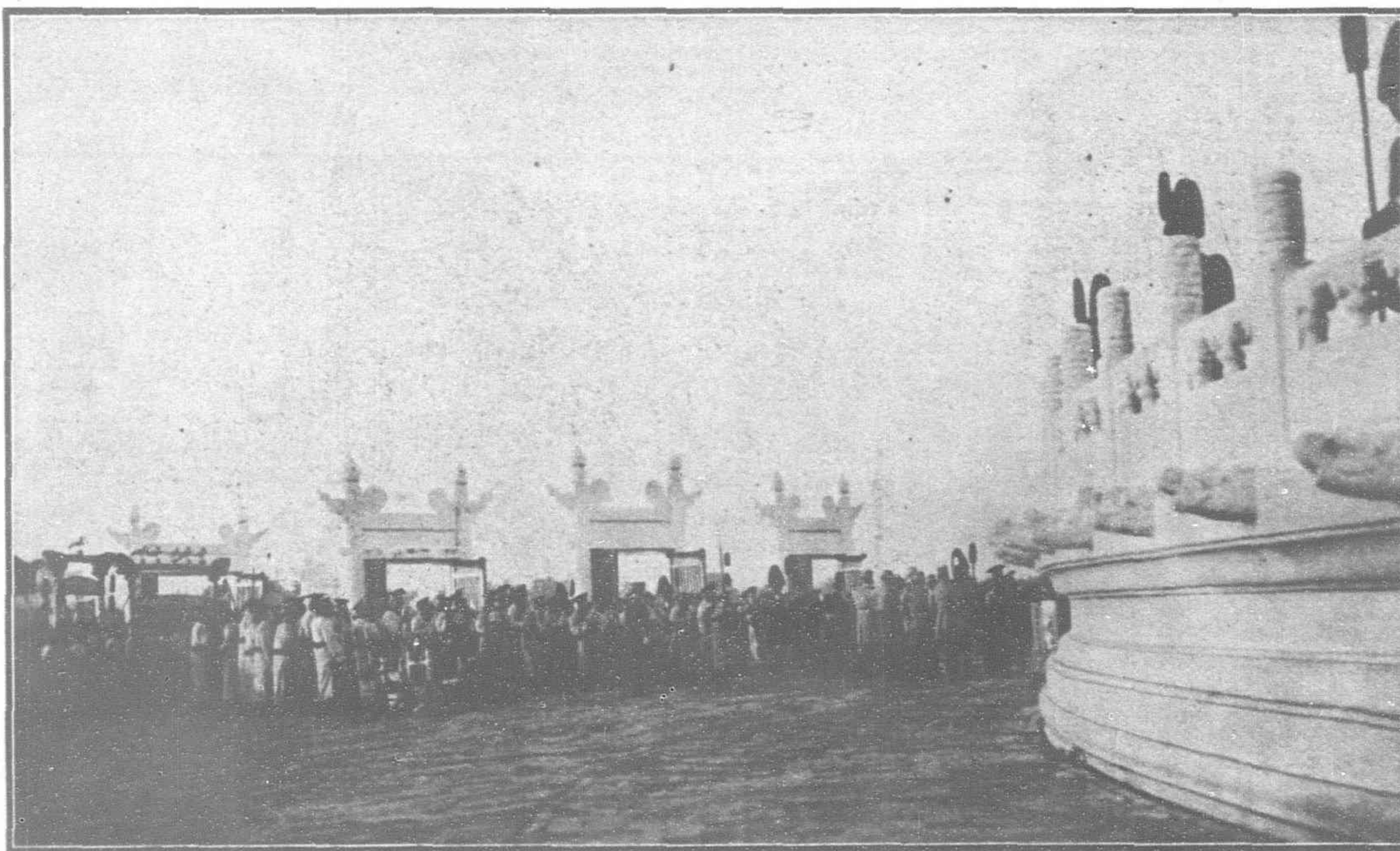
On the occasion of the Winter Solstice, honoured by a long line not only of Monarchs but of Dynasties, President Yuan Shih-kai went in state from his palace to worship Heaven at the famous open Altar, that was formerly regarded as the Centre of the Universe. In every respect the ceremony was carried out with the splendor, and something of the mysticism, that surrounded it in former days.

The Temple of Heaven itself is the first show place in Peking. Within a vast enclosure covering many acres stand the temple, the altar, and many buildings, the colors of which are of great and varied beauty. The altar is a white marble dais, circular in form, and of proportions and simplicity that have inspired the wonder and admiration of men from every land. There is no covering to it; it is open to the sky and Heaven.

This white altar was a brilliant

sight as the sun rose on the clear, cold morning of December 23. At every pillar of the balustrade stood a spear bearer in uniform and plumes like a modern European lancer in parade colors. In the enclosure immediately below were the musicians weirdly clad in robes of blue studded with stars: and their instruments were those of the days in which Confucius lived. There were

probably two hundred of them. There was a troop or choir of small boys who played reed pipes, with pheasant feathers five feet in length swaying from them. The stringed instruments, giving forth music like harps, were longer than anything we know in this day—some six or eight feet. Then there were bells of the extraordinary shapes and tones of two thousand years ago. The enormous drum stood high up on a stout pole supported by dragons' heads at the base, and over it



The general scene, including musicians, soldiers, choristers and officials in the enclosure below the Altar during the ceremony.

hung a canopy of red and gold.

The musicians stood in two groups at the sides of the main aisle to the altar, the southern aisle; and between them the officials, those who took no part in the preparation of the sacrifices, were ranged in groups according to their grades, ready to kowtow at the proper signal. Scattered round about this orderly arrangement of men in robes and hats of a style worn centuries ago, were military officers and police, the police in black and gold, and the military men in the brilliant modern uniforms which the Republic has adopted. In all the crowd there were but two foreign civilians, one being the writer; and this was the first occasion that a foreigner has ever been admitted to this sacrifice.



President Yuan arriving at the grounds, wearing a military uniform and being borne in a sedan chair.



Group of choristers with reed instruments surmounted by the tail feathers of pheasants.

Just as the sun rose the President's motor car, surrounded by a troop of officers on galloping Mongolian ponies, drew up at the last gate but one,—for one must pass through many gates before reaching the Altar of Heaven. The President, likewise dressed in uniform, descended from the car and got into a sedan chair, which was borne by eight men through the gate and into a red tent-like, impromptu building,—not the permanent structure in which the Emperor used to robe. And in a few minutes he came out robed like those officials who awaited him, except that beneath his overgown of blue the stripes of an imperial underrobe trailed, and on the overgown twelve, and not eight or less, conspicuous medallions shone, formed of interwinding dragons and other symbols.

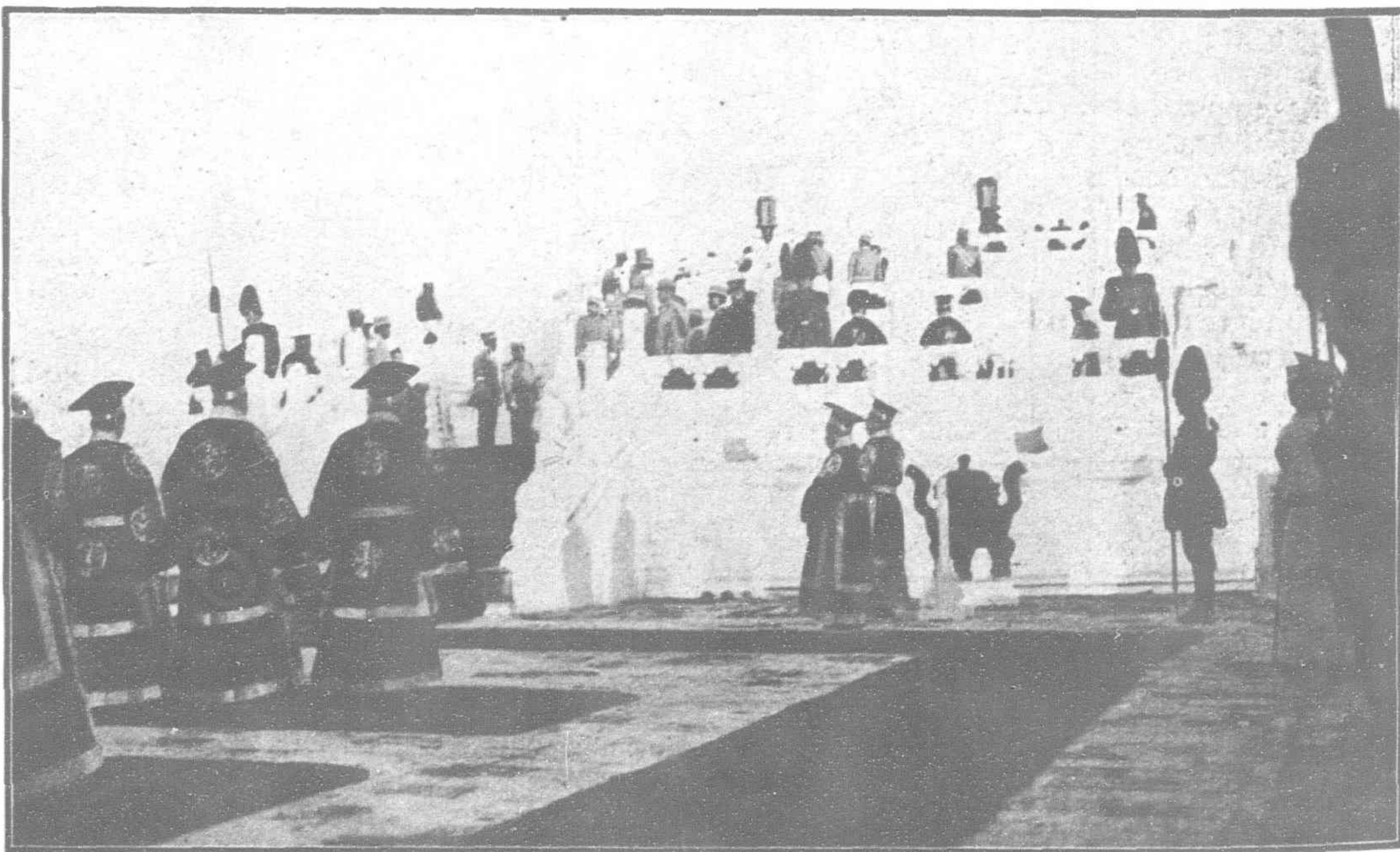
The ceremony lasted for an hour, terminating with the burning of the sacrifices in a great green-tiled brazier beside the altar. Incense, the hair and flesh of a calf, the finest silk, and a

tablet sealed and signed by the President, were put into the flame.

It was a bitter cold day, and no sooner had the President passed out of the inner arches than the soldiers, who had stood on guard over night, broke ranks, some of them climbing upon the sides of the great brazier and warming themselves by the sacrificial fires.

For this worship, as for that at the Confucian Temple some months before, the President was criticised to some extent in private conversation, although the press took little note of the event and commented only favorably. It was said in private that Yuan Shih-kai was assuming imperial functions. The President, however, explained in a Mandate that he performed the ceremony only as the representative of the State, in which, he said, authority is now vested. The Mandate, as translated by *The Peking Gazette*, runs as follows:—

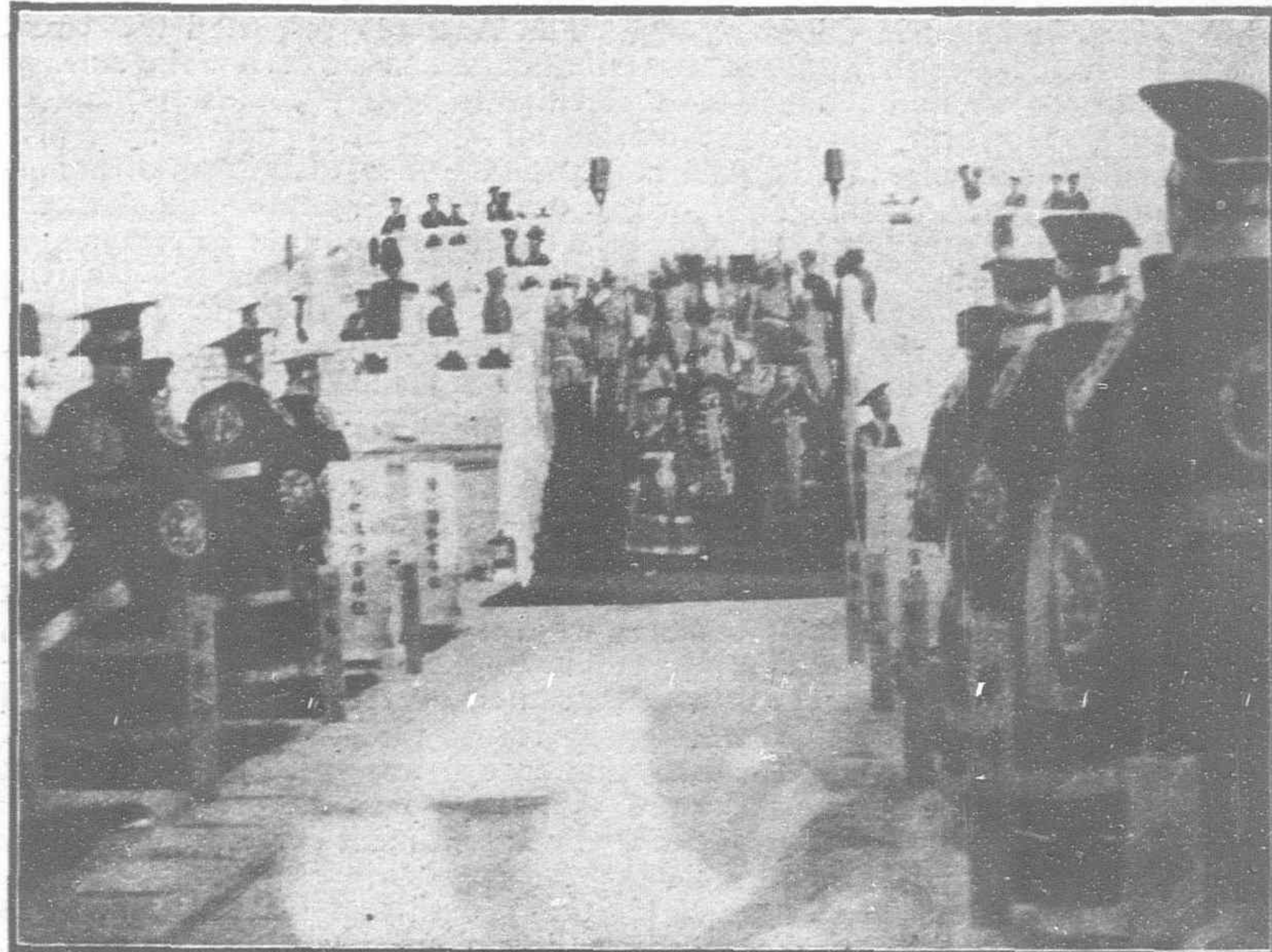
"The ceremony for the offering of bullocks has been recorded in Ancient Records, and the system of altars is



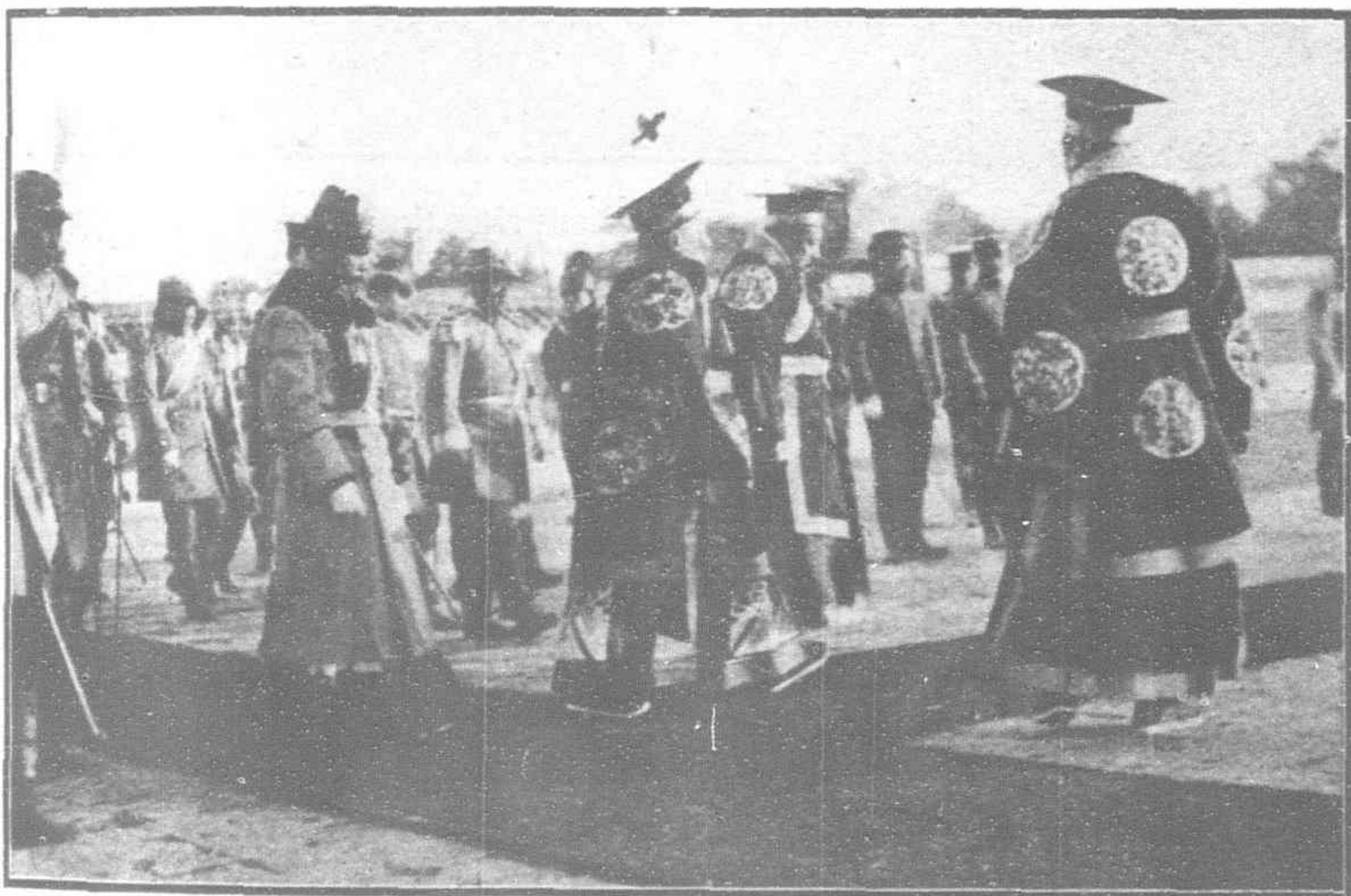
A general view of the Altar while the ceremony was in progress.



President Yuan in ceremonial robes, surrounded by officials and government officers, proceeding on foot to the Altar of Heaven.



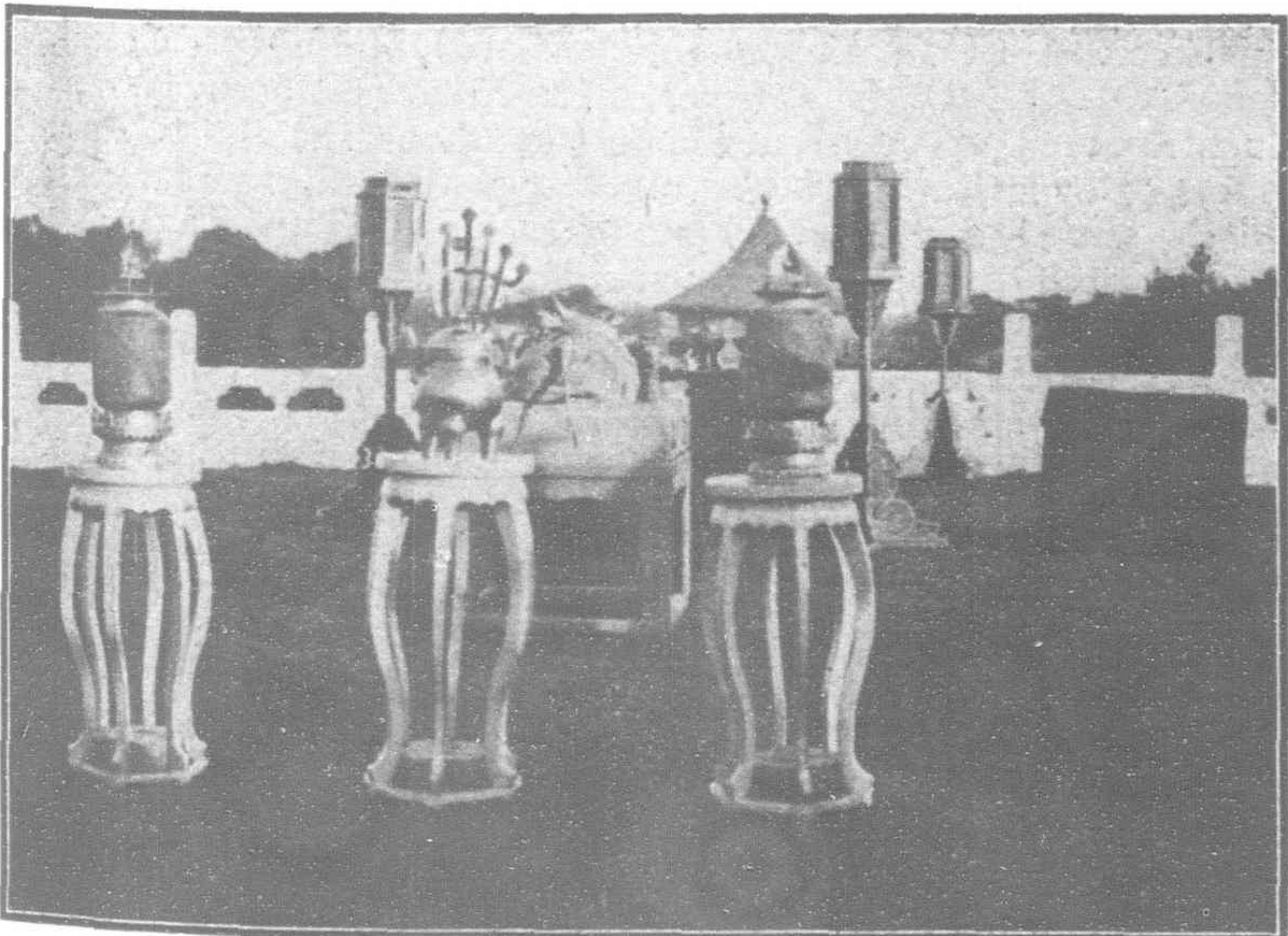
Ceremonial officers descending from Altar.



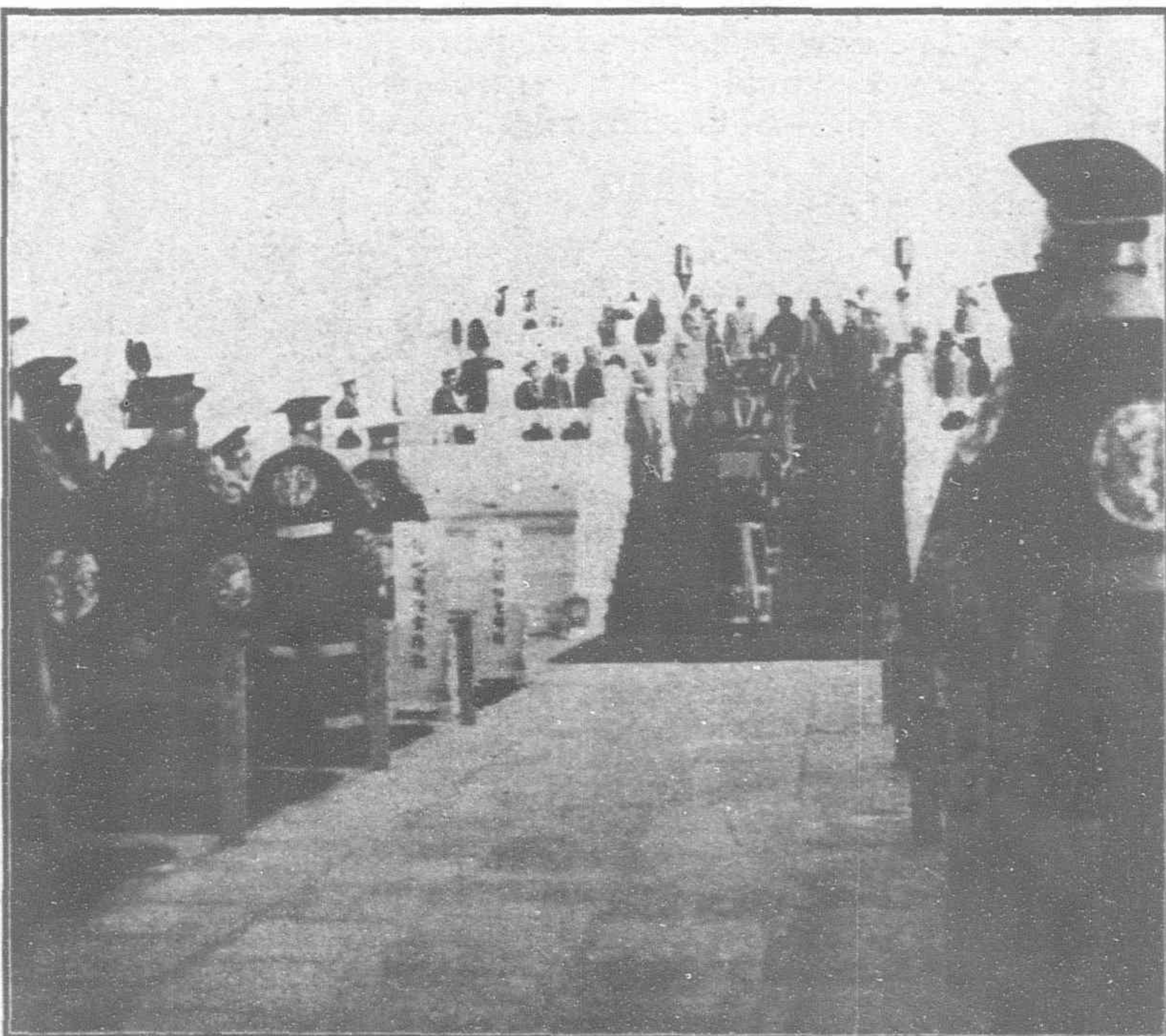
President Yuan leaving the Altar.



Officials at the sacrificial tables.



Sacrificial urns and implements.



Minor officials descending from Altar bearing the sacrifices to the sacrificial fires.

given in detail in Chow Kuang. The Ancients respected the Great Heaven, hence they offered it sacrifices. When we review the Ancient Records we find the matter of sacrifice to occupy a most prominent part. However, since the revolution all kinds of opinions have presented themselves to the public. It is said that the system of honoring Heaven originated from the monarchial system, and that the practice of offering sacrifices in the suburbs should not be retained by the Min Kuo. Thus the ceremony should be abolished as was the case of the suggestion to abolish the offering of sheep in Confucius' time. Indeed they have held the doctrine of equality of all the people, and yet they have failed to appreciate the sincere respect for the presence of God. They think that to worship ancestors is an act to be performed by the sovereign of a nation, ignoring the fact that to remember the origin from which one derives his being is a common principle of society. They have caused the abolition of the sacrifice of bullocks, and made altars a heap of ruins. Certainly this is not the way to manifest the Grand Ceremony and to honour the august traditions. Heaven countenances what is countenanced by the people, and Heaven hears what is acceptable to the ear of the people. Anything which the people ask will be granted by Heaven. Therefore in ancient times when the sovereigns governed the people they reigned in the name of Heaven. It meant that an eye was there always looking down with power, and showed that there was the presence of the Unseen to afford just protection. Such sentiment corresponds exactly with the spirit of republicanism.

The Standard Ceremony for the Worship of Heaven, which was passed by the Political Conference and fixed by the Bureau of Rites, has already been promulgated. In a petition of the Ministry of Interior it is now stated that as the 23rd instant of the 12th month of this year is the day of the Winter Solstice, during which date the Ceremonies of the Worship of Heaven should take place, therefore I, the President, have decided that on that date I will respectfully perform the ceremonies in person at the head of all the officials in the capacity of the representatives of the people of this country. All the local officials, as representatives of the people whom they govern, are hereby ordered to offer sacrifices in their respective localities. Thus the ancient ideas will be preserved and the great blessings from Heaven may be appreciated.

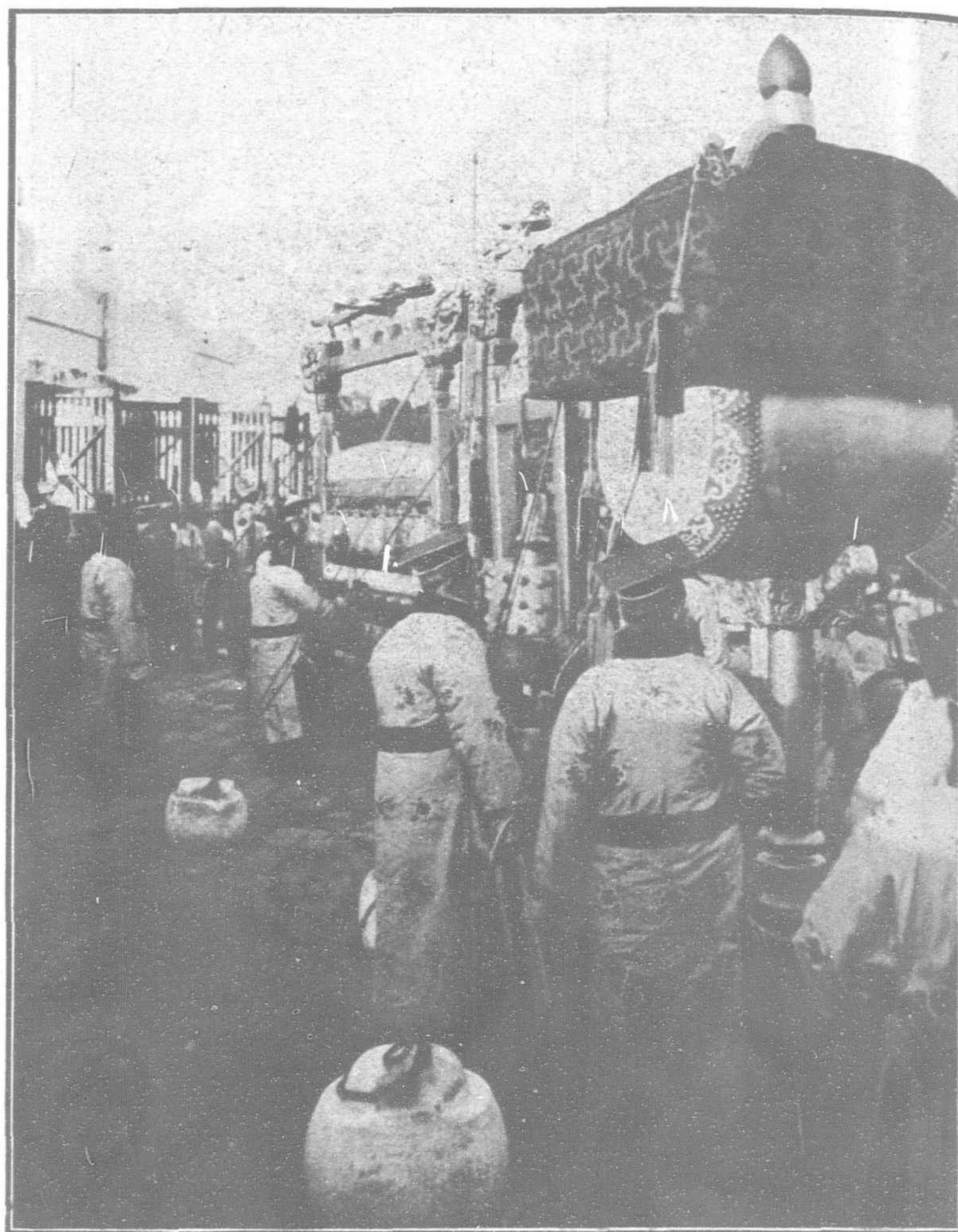
We take the following facts from the interesting description of the ceremony that appeared in *The Peking Gazette* on the day of the ceremony.

The Grand Sacrifice of Heaven has been resumed to-day after having been left in oblivion for three years since the abdication of the Manchu Emperor. The ceremony, with certain unimportant variations, followed the ritual prescribed in the Book of Rites which is described below in outline. Elaborate preparations have been made and care has been taken to insure the proper carrying out of every detail, as this is the function of functions, which in former days only the Emperor and his representatives were considered fit to perform. To suit the conditions of the Republic the rule is altered that every family may, if they desire, worship on a simpler scale. It may be interesting to add here that the people of China, so long as they remained un-Christianized, have always worshipped Heaven, though not on the winter solstice day. Almost every family sets up an improvised altar in the well-swept court-yard on the New Year day and offerings of cakes and fruits are offered with the burning of incense. The new rule, however, requires that the family worship of heaven should be performed on the day of the winter solstice with the additional rites of offering libations and burning of silk.

In order to impress upon the officials the importance of the occasion and that they may sanctify themselves, a mandate issued three days prior to the day of sacrifice, called on the officials to prepare their hearts and solemnise their minds, and to keep "preparatory fast" for two days and "devotional fast" for one day. When in "preparatory fast" the official can attend to his ordinary duties but not to attend funerals, visit the sick, drink wine, make merriment or eat meat, fish or eggs. When keeping the "devotional fast" everything except sacrificial affairs must be put aside.

At daybreak yesterday, being the eve of the solstice, the temple and the sacrificial tables and vessels were arranged by the Official Attendant in person in the following order:

On the day before the solstice and just after daybreak, the official Attendant sweeps both the inside and the outside of the Altar, so that a Resting Shed may be erected on the eastern side of the main road just outside of the Gate of the left wall of the Altar. Smaller sheds are erected on the western side for other officials. The Woodman prepares the Altar of Burnt Offering by placing firewood on it, and other attendants place the necessary tables in the First Circle of the Altar according to the plan approved and promulgated.



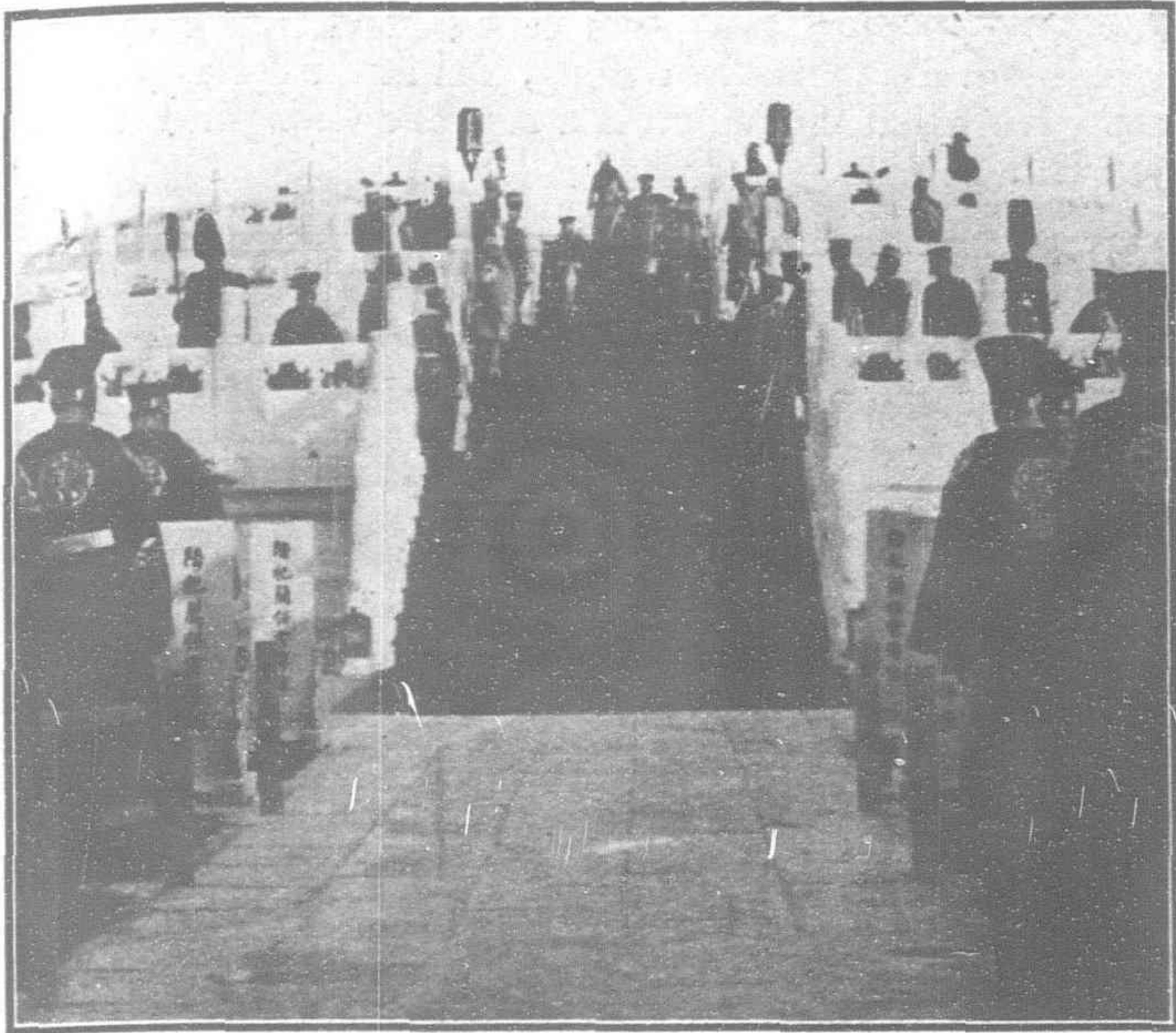
Among the ancient drums and bells during the ceremony.

In the same afternoon the Official Attendant prepares the Prayer Tablet and places it in a clean room. The tablet is made of blue paper and inscribed with letters of vermillion. He then goes to the slaughter house and watches the slaying of the sacrificial bullock, and sees that the blood and hair are placed in a tray and carried to the Meat Room. Next he places the bullock in the sacrificial tray and the rice, cereals, cakes and fruits in their respective receptacles.

At daybreak the Official Attendant arranges the different vessels on the tables in the Altar Circle, and the gongs and musical instruments on the sides of it. These instruments are arranged below the steps of the third circle in the following order: On the eastern side, 1 big bell and 16 harmony bells, a drum, a wooden drum, a standard, and on the western side, 1 big gong (ch'ing) and 16 harmony gongs as well as a Yu'an instrument shaped like a recumbent tiger. The musical instruments which consist of 10 Ch'ing (harpsichord), 4 Se (psalteries), 10 Hsiao (clarinet), 6 Ti (fife), 6 Pai-hsiao (pandean pipes), 2 Huan (porcelain conch), 2 Sheng (mouth organ) and 10 Pofu (a sort of drum) are arranged together with 2 Ching (banner), 2 Chieh (pole), 2 Kan (staff) and 64 each of Ch'i (pole axe), Yu (feather staff) and Yo, in equal numbers on each side of the altar steps.

The vice-Minister of Interior acting as the Chief Inspector, then ascends the Altar by the flight of steps on the west side and inspects the arrangements one by one, after which he leaves the Altar by the same flight of steps.

Then headed by his retinue the President ascends the Altar by the flight of steps on the southern side and takes his position in the Second Circle facing north. At the same time all the other participants also take their places according to the approved plan. The ceremony of Lighting the Bonfire is then performed. At the cry of the Herald the President bows four times, which example is followed by the other officials, while the musicians play. The tray containing the blood and hair is carried forward and placed on the table.



On either side of the pathway to the Altar were ranged officials of the various boards, each in his appointed standing place.

The next part is the offering of the silk. This is done with the President advancing to the first circle and lifting the silk handed to him by the Silk Carrier. The silk is afterwards placed in the centre of the table and the President returns to his kneeling place outside the First Circle.

The musicians then strike up the music of Meat Offering, and immediately an official removes the tray containing the blood and hair. Another official comes forward with a pot filled with hot soup, which he hands to the President, who lifts it as high as his face and returns it to the official. The pot carrier then pours the soup on the meat in the tray three times and descends the altar by the steps on the west side. The President then returns to his kneeling place and the music stops again.

The first prayer is now offered in the following manner. At the announcement of the Crier the goblets are filled with wine, and immediately the Head Musician gives the command to start the music of the First Prayer, which is accompanied by the dancers going through the evolutions of Kan-Chieh. Meantime the President is ushered again to the First Circle and given the goblet, which he lifts as high as his face and it is handed back to the Cup Bearer who pours the contents in a tray. The President next advances to the Table of Prayer and stands in front of it. The Chanting Official takes his position on the right of the President and reads the Prayer, which is worded in the following senses.

"On the . . . day the Great President . . . representing the citizens, craves to pray to the Heaven above and say, Heaven thou dost look down on us and givest us the nation. All seeing and all hearing yet how near and how close. Now we come before Thee on this Winter Solstice day when the air takes on new life, in spirit devout, ceremony old and with offerings of jade, silk and meat. May our prayer and offerings rise unto Thee with incense sweet. We sanctify ourselves and pray for Thine acceptance."

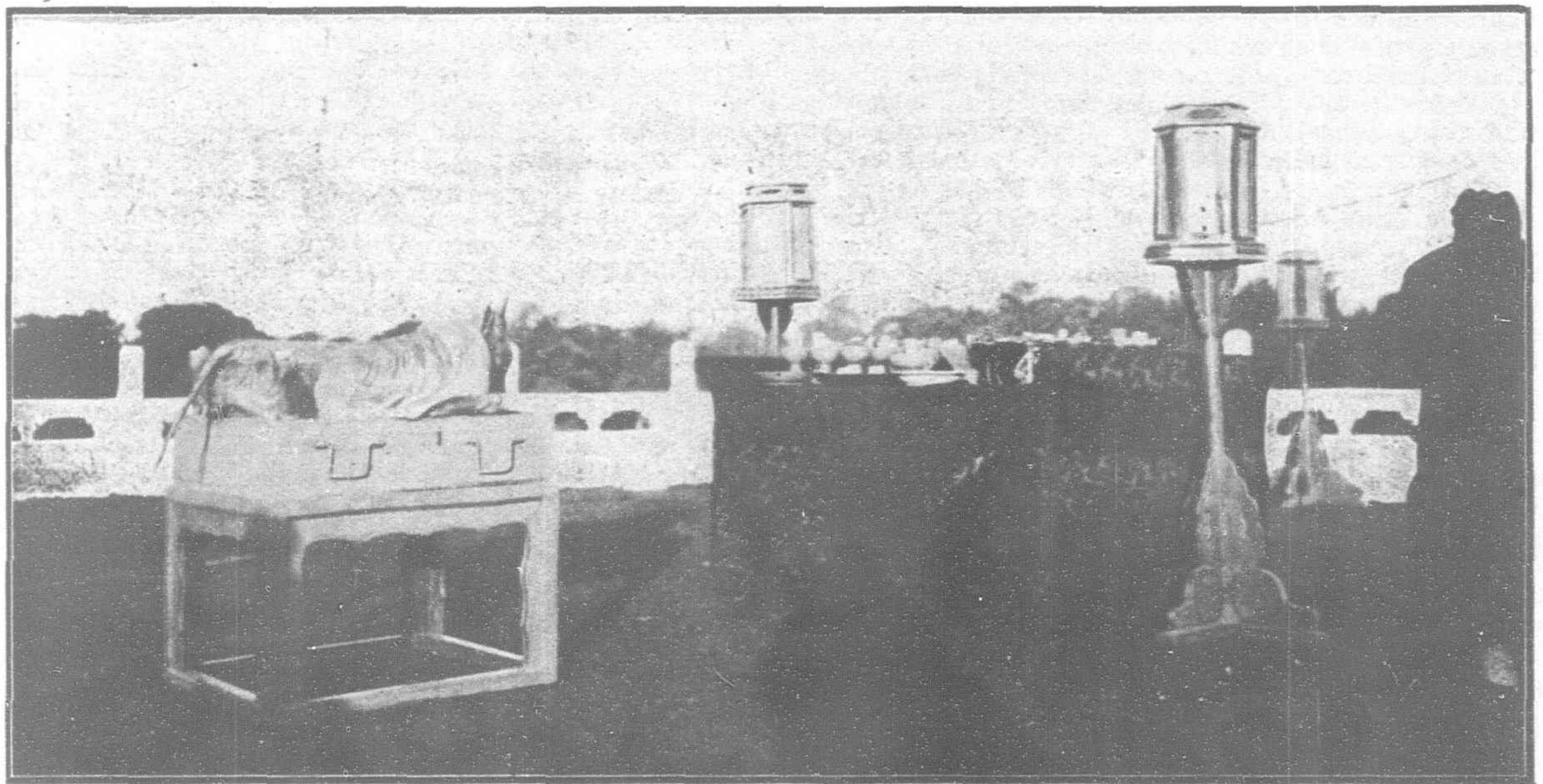
When the reading of the prayer is over, the President lifts up the Prayer Tablet and hands it to the Chanting Official, who places it in a basket. The President then retires to his kneeling

place and prostrates himself four times, which example is followed by the other officials. The Second and Final Prayers are offered in much the same way accompanied by particular kinds of music.

This part of the ceremony is symbolical rather than real. The blessings are symbolized by a cup of wine and a portion of meat, which are handed to the president by an official on his right, one by one. These the President lifts with two hands in a reverential manner and hands to the official on his left. The President then returns to his place of worship and prostrates himself four times, followed by his subordinates. Some of the vessels containing grain, etc., are now removed to one side and Green Jade (beryl) is offered amidst music.

The Great Ceremony is closed with the Burnt Offering or the Watch of the Bonfire as it is called in Chinese. With due solemnity the Chanting Official carries the chanting tablet, the Silk Carrier carries the basket, and the Cup Bearer carries the wine and cereals to the Altar of Burnt Offering and places these things on the firewood. They are followed by the President and his retinue. The former takes a position west of the Altar and facing it. At the command of the Crier the fireman lights the wood and the ceremony is concluded. The President, heralded by the Heralds and Ushers, returns to the resting shed and there changes his dress, after which he returns to his palace, and the grand Sacrifice is at an end.

It may be interesting to remark that in order to suit the circumstances of the time much of the old form of ceremony has been discarded. To take all possible religious tint out of the ceremony, the old custom of receiving and sending off the god has been cancelled. A bullock used to be burnt with the bonfire but this is now considered meaningless and is therefore eliminated from the programme. Incense is burnt as a token of the ascending prayer and devotion of the worshippers. In the matter of prostrations the old custom of kowtow nine times and kneel three times is abolished and in its place the ceremony of prostrating four times has been adopted. The reason given is that



The bullock and edibles that were offered as a sacrifice to heaven.

to show extra devotion and reverence the ceremony of prostrating twice, which was the highest form of respect among men in ancient times, is doubled. In order to avoid confusion and assure reverence, the old custom of offering the bullock has been changed into offering of the meat, that is, pouring the hot soup on the meat already placed on the table.

The most important part of the change comes at the conclusion of the ceremony when the Blessings are received from Heaven. This, according to the old usage, only the Emperor was fit to do and he was the only person supposed to be blessed by Heaven as he was the person who offered the sacrifice. But as the nation is a Republic and the President is the representative of the citizens, he only receives the blessing on behalf of

the citizens. Thus if he should be unable to attend the ceremony a delegate may be appointed in his place and receive the meat and wine of blessing just like the President himself. Another sign of republicanism is the change of the name of the music. The music

of the worship of heaven was called Hsia in the dynasty of Chow, Yung in the dynasty of Sung, Yia in the dynasty of Liang, etc., etc. Now that the nation is a republic (kung-ho), the music is called Ho.

CHINA NEEDS EXPERTS: AND HOW TO GET THEM

BY CHING-CHUN WANG, M.A., PH.D.

Sometime ago a cartoon was drawn which showed that the only beings who could extricate China from her difficulties were experts. After examining the situation in China and the history of other countries, I agree, entirely, with the cartoonist and believe that one of the most important things at which China should aim in her regeneration is to train up, employ, and control a sufficient number of experts.

We may well say that the 20th century is a century of experts. The complexity of civilization, the growth of accurate knowledge, the progress of invention and the keenness of competition which renders a high degree of efficiency alone profitable, as well as the necessity of organization for conducting modern business or government affairs efficiently—all these modern things have brought about specialization of occupations. Therefore, many branches of industry, commerce and governmental administration which were managed by priests, poets, scholars, or men of general knowledge, can now be managed only by experts, if any degree of efficiency is expected.

Since the discovery of the law of division of labour, the bounds of human knowledge are growing faster than education. A Casaubon who had mastered everything known in his day, has long been an impossibility. With the vast progress of research in all fields, specialization in knowledge is daily becoming greater and greater. Hence we have every reason to believe that with the diffusion of knowledge, the more men learn the more they will require the services of those who know the most about particular subjects.

This process of specialization is spreading the world over, and experts are needed in place of the ordinary scholar. Seventy years ago an ordinary merchant in America or Europe was deemed fit to manage a factory or a railroad, just as in China where a purchased title was regarded as sufficient to qualify the holder to do everything from acting as a judge of the Supreme Court to the managing of a bank. But now these pursuits have become professions which demand special knowledge and experience. This process has been going on and spreading throughout all fields of activity and thought, until it has come about that a man of good intelligence and education, with all the sources of general information within his reach, is less competent than he was formerly to decide the questions that arise in a vocation not his own, with which he has had no particular familiarity. Without going into much detail, we can see that those countries or industries which prosper are those which have the largest proportion of experts in their service, while those which are now weak or declining are those which employ men of general knowledge instead of experts. This is so obvious that we need hardly emphasize further or enumerate any particulars. In fact, it may be well said that the strength of a government from now on is going to vary directly with the number of experts in its service.

NEED OF EXPERTS IN ANCIENT EUROPE

A brief review of history will help to show the need of experts. Athens was the cradle of European civilization. It was both powerful and prosperous for a time, but its downfall was as complete and dramatic as its rise was fast. The downfall of Athens, despite its prosperity and advancement in civilization, according to some best authorities, was largely due to the lack of experts in its service. According to the then existing system, the officers were called to office by lot and each officer could hold office only for a single year and was practically ineligible for a second term. Under those conditions, no official had any expert knowledge of the work assigned to him, however familiar he might have been with the discussion of political questions or affairs of a general character, nor could he in the short period of a year acquire any considerable experience in the management of the affairs of his office. In short, governmental affairs were handled by amateurs. With the exception of the slaves who did purely routine work, there were neither any expert subordinates nor advisers to assist the officials. Such a system did not work badly in a simple community where the various branches of the public service involved few things with which an ordinary citizen might not be familiar in his daily life, especially when there was a Pericles directing the affairs of state as a sort of glorified boss. But it could not meet a severe strain. We may safely assume, as President Lowell said, that the lack of experts contributed to the downfall of Athens before the blows of a highly organized Monarchy of the same race under Philip of Macedon.¹

The Romans were also short of experts. Under the Republic the officials were chosen also for a single year, and as a rule, were not re-eligible. The only difference between Rome and Athens was that the government of the former was in the hands of a ruling class, and that no one could hold a higher magistracy who had not previously had some experience in the offices of the official ladder. This system was better than that of Athens.

Although it did not provide sufficient experts it worked well enough so long as Rome was a small Italian State with simple industries and few foreign complications; but when she acquired dominions beyond the seas, when the contact with the East destroyed her old traditions of discipline, when the people were called upon to administer provinces, the system broke down. The lack of experts in the public service began to be of serious consequence, and Rome was brought to an end, not by external force, but by internal weakness and constitutional instability. Of course, there were other causes contributing to its downfall "but surely it is abundantly clear that government by a succession of amateurs, without expert assistance, had proved itself hopelessly incapable of maintaining an orderly administration on so gigantic a scale."² The State, in other words, had outgrown its machinery.

It was by the creation of a new organization that the Roman Empire prolonged its life. During the century following Augustus, the Emperors used their power to train up, at first, their immediate followers, and later free citizens; and gradually a permanent civil service grew up, which men of ability entered young and followed as a life career. The preservation of the Roman dominions for so long a period as well as the much longer life of the Eastern Empire, must be attributed in a great part to the employment of a larger number than before of trained expert officials by a practical government.

At the close of the Middle Ages the States of modern Europe began to assume their present form, and in every case they were ruled by Monarchs who employed, not officials appointed for short terms and replacing one another by rotation, but men whom they retained permanently and who were skilled in the art of administration. The new Monarchies meant government by experts, and that was one of the chief secrets of their efficiency and predominance.

Turning to the history of China, the same thing is true. The statesmen of the different dynasties who accomplished great things were not those who entered officialdom for a short time but those who acquired experience through a long period of service. In so far as we can recall numerous such cases we need not go into further detail.

EXPERTS IN GREATER NEED TO-DAY

Experts are obviously more needed in modern governments than in the past. The habit of frequent changes of officials, which means administration by persons without special skill in the public duties they undertake, might work well in a small, primitive community, or even in a large country where there is no outside pressure. But in this age of ours, when all nations and all races are thrown together to struggle for existence, such changes and such lack of experts will surely lead to bad results. Both industrial and governmental affairs have to meet a high degree of competition and hence the need of experts of all kinds is constantly increasing. They have revolutionized some industries, they have made many governments efficient, and they are indispensable in many cases.

Europe has found this out long before others. They have also discovered that a great obstacle to the influence of experts, which undermines efficient administration, is what is called the spoil system of filling governmental posts, by which is meant that governmental posts are regarded as the prize of political or personal warfare which the winners can give to their helpers for political or personal services. The governmental posts corrupt politics and politics in turn corrupt the governmental posts. Consequently, the Western nations are consistently endeavouring to take the great masses of appointments out of politics and place them on a merit basis. In fact, in the West experts are now used in most phases of governmental work. Only a lawyer is appointed a judge or government attorney, only a physician is appointed a health officer, only an engineer is employed to do engineering, only experienced and practical men to run a railroad, only trained men to act as diplomatic and consular officers. In fact, the tendency is towards employing only experts for government service. All the Departments of the British Government have what is called permanent under-secretaries who are experts. The scientific departments and commissions at Washington are filled with men of the highest attainments who are retained in spite of political changes. It is well known that a vast benefit has been gained by taking so many places out of the field of political patronage and party spoil.²

To be specific, the influence of expert officials in municipal governments of Europe is especially self-evident. The chief magistrates of the cities in Germany, for example, are strictly permanent professional administrators, and the business of the cities is in the main conducted by them and the other permanent officials for whom municipal work is a life-

1.—Lowell, "Public Opinion and Popular Government" p. 265.

1.—Lowell, "Public Opinion and Popular Government" p. 268.

2.—Vide Lowell, "Public Opinion and Popular Government" p. 276.

long career. In France and England, the influence of experts is just as powerful although less apparent.

It can be generally admitted that the affairs of our cities are less well managed than those of American cities, and that the latter in turn are less well managed than those of European cities. This comparison is also true in many other branches of governmental activities. The underlying cause of the differences in the result of the administration of European, American and Chinese cities is not to be found in the difference of any outward form of organization, but in the fact that more affairs in American cities are conducted by inexperienced, temporary officers than in Europe, while our case is still worse than America.

Many people, with good reason, believe that we can learn much from European and American experience. There are still others who advocate wholesale imitations. But transplanted political institutions are likely to be barren, unless the roots are carried with them. There are said to be monkeys in Africa, who are more imitative than parrots, in that they copy faithfully the huts of men and then live on the outside of them instead of the inside. Political or other imitation is not free from this danger of copying the obvious, while failing to perceive the essential. To get better results, we must look for the real cause of things.

LACK OF EXPERTS IS CAUSE OF CHINA'S WEAKNESS.

One of the chief causes of China's weakness is the employment of men of general knowledge instead of experts in the government administration. The mandarin and the famous Expectant Taotai were deemed to be able to do everything, from the running of a railway and the negotiating of a treaty to the drilling of soldiers or the policing of a city, irrespective of what training they had before. When we have such men to face the foreign experts who know every corner of the game in making our treaties or in discussing a loan agreement, it is no wonder that we have lost much of our inherited privileges and now find ourselves tied down to all sorts of agreements, "promises" and "undertakings." When one examines some of our treaties and other kinds of agreements, one can not help feeling surprised by the absurdity of some of their stipulations, and wondering how they ever could have been made. We can not estimate how much we have suffered from the lack of experts in our service. The great wonder is that we have not done worse.

There are many reasons why we have not trained up experts. But the most important is that we seldom had men with special training to begin with, and that we shifted our officials too often.

Little improvement has been made in this respect. Not many more experts than before have been employed to do real constructive work; and the non-experts have been shifted and changed oftener than before, thus further reducing the chances of the men of "general education" to become familiar with the work of their offices. Since the revolution we have had no less than seven or eight changes of the Cabinet. Most of the Ministries and Departments have had equally as many changes and re-organizations. These changes are bad enough, but what has been worse is the fact that with each and every change or re-organization, wholesale changes of officers of the lower grades have often been made. It is reported that under one excuse or another, some new Ministers would discharge the men appointed by the previous Ministers and gradually get their own candidates to fill the vacated places. When these new Ministers went away, their successors would do the same. Indeed I have personally heard some petty officers say that what they get as pay was really not worth the fear and anxiety they had of being discharged. And it goes without saying that each of such changes meant a complete dislocation and deadlock of the working of the offices concerned.

We must not blame the Ministers for making the changes, for there is no system to lead them to do otherwise. There seem to be three reasons why there were so many changes of the subordinate posts. *Firstly*, if a new Minister is earnestly working for improvement, he has to change the men because they are in many cases incompetent; *secondly*, if he is not earnest he has also to change them in order to accommodate his own men or because some of the old men may be too good to suit him; and *thirdly*, there is the pressure brought to bear upon a new Minister by his colleagues, old friends, relatives, and others who had helped him in the past, all and each one of whom often would have more than one candidate for him to accommodate. Against such pressure, a Minister often might be helpless. In the absence of any system upon which he may depend to prevent irregularity in making appointments, even if he wishes to do the right thing, to say nothing if he is inclined to do otherwise. As a result, few of our offices have been held by men for any length of time. Every man is usually quite new to the administrative office he might fill and leaves it before he has time to learn much more than he knew when he came in. What is true in the Capital is equally true in the Provinces. Thus, one is on the one hand handicapped by being a new man unfamiliar with the work of his office and on the other hand by being prevented from settling down long enough to learn his business. When we add to such difficulties the constant anxiety which one feels in his heart of being shifted or dismissed, how can we expect good results? Under such circumstances no human being can effect any real improvement. When one is new to his work and at the same time does not feel secure in his position, it is but natural that he should either try to do no more than say new year phraseologies so as to "look wise" or make a fool of himself by trying to turn everything upside down and build castles in the air of which he can have but a novel conception.

The causes of such a state of affairs are too numerous to enumerate. One of the most important, perhaps, is the political and national changes which took place during the last three years. Another trouble seems to lie in the fact that there is a gap between the old and the new. The older people who have gained some experience in the old regime are becoming fewer every year. Moreover, very often the old experience does not fit a

man to do business under modern conditions. On the other hand, the younger generation have not the necessary experience. Therefore the experienced men dislike to have the younger generation, or sometimes even are afraid to use them for fear that they might assist them to get the necessary experience and thereby assist themselves to be crowded out. Hence there results the gap which has led to many misunderstandings and made impossible that co-operation between the old and young, which is essential in our national life. For the young need the guidance of the old and the old need the energy of the young. The two are mutually dependent, in order to get good results.

The events of the last three years seem to show that China's "young party" went to one extreme and the "old party" is going to the other extreme. Such tendencies to gravitate toward extremes must be checked and the best of the two must be harmonized, before we can expect stability. And the real greatness of statesmen lies in their ability and in their readiness to face the situation squarely.

CHINA MUST HAVE MORE EXPERTS FROM NOW ON.

Such a state of affairs, bad as it is, might have been excusable in the past; but from now on, we must make a new start by bringing about harmony and by getting more experts. It must be pointed out that besides the former governmental affairs, which itself requires experts, the government is gradually but surely taking a large amount of commercial business into its own hands. Business is business, which must be managed as business in a business manner, and not as politics in a political fashion. There are business laws just as there are physical laws, the observance of which is imperative. Moreover, the worst enemy of productive business is politics, and experience has shown that the two must be separated in order to secure success. Unless we make this distinction at once, the disaster, which will slowly but surely come, will be unthinkable.

The so-called productive businesses, such as railways, tramways, mining, etc., undertaken by the government is financed largely with foreign money some of which is reported to be tainted with ulterior motives. As all productive businesses are, they may earn a profit or they may result in a loss, which difference depends, to a large extent, upon the manner in which the business is managed. To earn a profit is hard and uncertain, even with expert management, but to bring about a loss is easy and sure if we conduct our productive business in the same manner as we handle our governmental affairs. The chief reason why the China Merchants Steamship Company is so weak and why so many governmental undertakings such as paper-factories, weaving mills, etc., have failed is due to their having been mixed up with politics. Both present and past experience in our industrial life is so plain that this assertion does not need any explanation or citation of specific cases to establish its validity.

We are beginning to imitate certain foreign powers in adopting the paternal policy of owning all large industries, such as railways, telegraphs, waterworks, tramways, manufacturing enterprises, etc., but we seem to fail to recognize the great difficulties which the most successful governments have in handling such enterprises. We see their benefits, but ignore the efforts of the foreign governments to which are due the benefits. Guided by such faint ideas and lured by the delusion of enormous profits, we shall soon fall into an eternal abyss. To safeguard against this danger, we must begin right away to take proper precautions as did other countries in separating the management of such businesses from politics. Otherwise our productive enterprises will corrupt our politics and our politics will corrupt the productive enterprises. Once we get into such a dilemma, some sort of an international commission might be tempted to take over all such enterprises from our hands. But to separate productive enterprises from politics is a hard problem, for it is often found that the politicians are usually opposed to such a separation.

After effecting such a separation, then we should place as much of the work as possible in the hands of experts. But for the present, we have not enough experts. So besides employing real foreign experts, we must try to train up our own experts. To effect this we need to make the governmental and industrial posts more permanent and put everything on a merit basis. The head of a great industrial enterprise would not think of changing his subordinates every year or two. Whether honest or corrupt, whether generous or oppressive, he wants under him men who have proved themselves efficient for his purposes. A government is but an enterprise on a large scale and should be managed more or less in the same way. This is especially true when it takes up productive business. The public servants should be taken into the service impartially and kept in the service so long as they do their work properly. When the higher officers are removed, the lower ones who have good records should be promoted to fill their places. In the absence of such a system of promotion most people would not care to begin in the lower offices and work their way up, although it is the only way to get proper experience and produce efficient administration. They can not be blamed for it, because it is almost a universal truth in China now that once one takes up a small job, however important and constructive it may be, and however faithfully he may work he can seldom have a chance to become known to the men higher up and get promoted regularly unless he becomes a protégé of some sort or to somebody. Consequently, we see all men striving to be "big men" and to hold high offices, thus leaving the real work undone. On account of the lack of permanency a man is tempted to try to make the most out of a position for himself as quickly as possible, for he feels certain that his days to hold the post are numbered. In order to expect improvement, we must remove these evils.

In turn when the officers are permanent, they will be prone, for the same reason, to retain their own subordinates, promoting them to higher places as they show ability. If the head is good he will retain good men; if bad, he will retain and promote men who will carry out his evil designs; but in any case, a corps of expert administrators will likely be

produced in every department. Once the public service becomes a long career, men will enter it while young and follow it through life. The service is not always good; it may become stagnant or rigid and its members negligent, oppressive or corrupt. But even in the worst case there will be a certain durability derived from the expert qualifications of the members.

Whether our Government will endure or not will depend upon its success in solving its problems, and among these, few are more important than the question of its capacity to train up the right kind of experts and to use and control them in the right way. We have tried to show the need of experts in our country. We have also suggested that in order to get experts the positions in the government service should be made more permanent so as to give the officials enough time to learn the work of their offices and thus become experts. But before we could effect the latter reform advantageously, we must, as we have slightly referred to before, have some effectual methods for the admittance of worthy and well qualified young men into the government service to begin with. Otherwise corruption and favouritism will begin from the beginning and unworthy men will thus get in from the outset. Our proposed system of permanent service presupposes that the men who enjoy its protection should be worthy. If without the protection of any permanent service the unworthy wire-pullers can manage to get in, hold on to their posts and leave no room to the worthy men, they will make it impossible for others to secure appointment, once a system of permanent service is created. Nothing could be so damaging as such an abused application of the civil service system. Yet such a bad state of affairs is easy of creation in China where of late many people seem to have been trying to use the existence or absence of certain institutions in the West as an excuse for their own actions, without any regard to the spirit of such institutions.

MUST OPEN DOOR TO ALL.

What is most important is that the door of all sections of the government service, especially those of a productive nature, be open to all competitors on an equal basis so as to prevent such services being filled by men of certain "circles" or cliques, and at the same time to get well trained men as well as to provide a safety valve for the educated classes. This is one of the most essential measures to take, not only for the safety of the government, but the future of the nation, without which discontent is bound to grow to such an extent as to lead to serious disaster.

For thousands of years, the Chinese mind has been saturated with the idea that government honour and office are open to all who can pass the old system of examinations. One felt that it was his own ability and his forefather's good deeds that lead to influence; and so when one failed to secure such honour or office one would blame oneself or curse his bad luck instead of growling against the Government. People were thus not only encouraged to study hard, but to do good in order to appeal to the mercies of Heaven both for themselves and for their children in passing these examinations. The system acted as a sort of safety valve through which the danger of the anger of the people against failure to obtain government appointments or honor was let out. This indirect influence of the examinations must have been tremendous.

Since the abolition of that system, no substitute has been introduced. Schools and colleges with the help of Civil Service examinations, to a certain extent, have substituted this system in the West where the conditions are different, but they have been a failure here, so far as acting as the substitute of the old system of affording all citizens an equal opportunity to get honour and employment is concerned. In the first place, the entrance into the Government schools and colleges in many cases is not systematized. So favoritism and personal influence often have more to do than educational qualifications in enabling candidates to enter these institutions. This undesirable state of affairs is clearly shown by the fact, besides others, that a number of the government schools are filled with students from a certain locality or province. Such irregularity of admittance into the government institutions, together with the heavy cost of modern schools, closes the door of education to many ambitious and capable young men who would become useful under more favourable conditions. This undesirable state of affairs is bad enough, but this is not all. When the students graduate, again there is not any effective way whereby the Government may test and select the graduates for actual service. Consequently favoritism and "pull" again occupy the foremost ground in most cases.

The number of such graduates and returned students is increasing rapidly every year. Since Government service is not enough to give all of them employment many of these young men must be left out. As it is now, the only way by which they may get Government employment seems to be to get some influential friends to pull them in. Under such circumstances, where there is no way whereby all may have an equal chance to demonstrate their qualifications or to compete for employment, those who are left out naturally may complain against the Government. Moreover, human nature is the same the world over in that every man seems to think he is better than his neighbours. If he sees others get employment and honour and he is left out, he is unconsciously led to feel bad about it. The only way to appease him is to let him try the same test with others; and, if he fails, then he will have to blame bad luck instead of the Government. At any rate, in the absence of any effective system to select men on an equal basis, the Government opens itself to serious criticism which may be undeserved, and creates against itself an increasing number of enemies. Unless some preventive measure is taken this defect will develop rapidly and lead to disaster.

The lack of a system to enable all to compete for government honour and employment on an equal basis might have been permitted years ago, but in the present age, it is intolerable. The fact that the Government has adopted the so-called paternal policy of taking up various productive

enterprises, such as railways, telegraphs, telephones, tramways, banking, mining, etc., makes it absolutely necessary that some effective system should be introduced so as to afford all citizens equal opportunities to obtain governmental appointments. This is imperative not only from the point of view of justice but from that of the Government both as owner of these industries and as the Government of the nation.

As intimated before, business must be managed by experts in a business like manner in order to attain success. To secure the services of experts, we must select worthy men to begin with, for in these services it is even easier than in other cases for the authorities to appoint men for selfish purposes. As it is now, the power to select men for such services is largely left in the hands of the directors, managers, and other officers who have influence, to send down "slips of names." What is bad is that no effective rules are laid down for their guidance in exercising their power. Some have tried examinations which were not always above suspicion, while others have not even tried examinations. In short the prevalent method by which men secure entry into such services seems to be to get some influential men to pull them in. Such a way of filling ordinary posts is bad enough even when the activities of the government are limited to purely governmental routine, but when such activities are extended to productive enterprises, the evil is far more serious. The Government will not only be depriving itself of the services of the best men, but will be turning these men into turbulent opponents. Furthermore, it will also be giving the opportunity to unscrupulous officials to use these services in nursing their followers so that they may count upon them to block the effort of the Government at critical moments, to say nothing of the disadvantages resulting from bad management.

Since I am a railway man, I may take the railways as a hypothetical example. Few people realize what the railway service means. In most modern countries it constitutes the largest single kind of enterprise besides that of agriculture. In India, the number of men employed by the railways is about 900,000. In the United States the number is twice as large. China, herself, even now must have some 10,000 or 15,000 railway servants and the number is bound to increase rapidly. By keeping these figures in mind, one can see how important it is that some effective means should be found for selecting the best men for each kind of occupation in such services. In the absence of effective measures to enable all to compete on an equal basis for employment in this service, what could be reasonably expected under ordinary circumstances would be that the authorities farm out good posts for their favorites. The posts thus become the prize of different parties, which is but natural. This would be not only an injustice to the men who have no influence or are outside of the different parties, but would make it difficult for the Government to make any progress, except that which pleases the "parties." Moreover, it would be extremely difficult to check fraud or incompetency. In fact the drawbacks would be too many to enumerate. It is said that Italy actually experienced this evil and her railways were by it brought to bankruptcy. Other countries have adopted means to prevent it, and we must do something effective if we want to make our railways a national enterprise managed by the best and independent men on a business basis. This is only a hypothetical illustration; yet hypothetical as it is, it is by no means impossible of happening.

Such discrimination as the above would be especially serious since in our age the demand of the people for just treatment is keener than ever, because the struggle for existence is fiercer. In fact to most of the young men who complain of unequal treatment it is not merely a question of honour but rather a question of making a living. In countries where there is plenty of employment it is not vital whether or not the Government open its door to all, for the reason that the people can make as good a living elsewhere. But in China, the great majority of the student class, who are said to be the hardest to please (at least at the present) have to look to the Government for employment; and when they see or feel men less able than themselves secure appointments through favouritism and they are deprived of a fair chance to compete, it is but natural that they harbour complaints against the Government. This is especially urgent since governmental enterprises will constitute a large part of employment in China for educated young men. Unless we find some effective means to guarantee that the doors to those government services shall be kept open to all on an equal basis we can not expect tranquillity.

The real meaning behind all the recent troubles and the labour and other "class" movements is the desire of mankind to get an equal chance for a living. In other words, we must provide a safety valve for our teeming population; and no other valve is safer than to give all men an equal opportunity to get employment. The Government cannot do better than to adopt a system through which it may say to the people with justice, "Prepare yourselves. The Government will give you a fair test, and the best will succeed."

COMPETITIVE EXAMINATIONS NEEDED

One of the means which, I believe, will be of great help, is to adopt competitive examinations for all lower grades of the Government service, and to fill all the upper grades within well defined limits by further examination and promotion. One of our recent but most undesirable characteristics which is entirely out of harmony with the teachings of our Sages and which has done much harm to our country is our blind and violent change of attitude towards foreign institutions. It was not long ago that we were so self-conceited that we thought we were the only civilized nation in the World and that all others were barbarians. It was the fashion of the time to do everything to prevent foreign institutions or ideas from entering our soil. But this state of affairs did not last long. A few years later our country was so affected by external influences that the former blind prejudice was soon changed from one extreme to another with no real reason, when people seemed to believe just as blindly as before that everything foreign was good and all things Chinese were

bad. Lately the whole country has been so carried off by pro-foreign ideas that during this transitional period we have cast away many invaluable traditions which had been handed down to us by our forefathers, and picked up numerous foreign "trash" which enlightened foreigners themselves are trying to get rid of. What is worse is the fact, that in many cases not only have we picked up bad foreign things but have also so misinterpreted and misunderstood good foreign institutions that even those which have proven to be beneficial in foreign countries have been shown to be harmful to us. This violent wave is so prevalent and unmistakable that observers cannot help noticing it, and many of our foreign friends who can see us clearly have been lamenting over our plight.

It is too long a story to state what bad foreign institutions we have adopted and what good Chinese institutions we have cast away. Such an enumeration may not help us. Besides urging upon all to be more discriminating in introducing foreign institutions and to be more careful in casting away those of our own, we wish only to call special attention to one institution which we cast away and which we need to restore and improve. And this particular institution is the old system of competitive examinations.

It is recorded that Shun the Great, about B.C. 2200, used to examine his officers periodically. In so far as writing had but been newly invented, it is impossible to tell in what subjects he examined them. In the Chou Dynasty, about B.C. 1100, the candidates for office were known to be examined in the so-called "six arts,"—li, yao, she, yu, shu and shu,—that is, etiquette, music, archery, horsemanship, writing and arithmetic. In the Han Dynasty, the subjects were extended. Character and past records of the candidates were taken into consideration. Therefore, men who had acquired a reputation of being filial to their parents and honest in their conduct, were to be recommended to be examined in such subjects as law, military affairs, agriculture, finance, communications, etc., in addition to the six arts.

It was about A.D. 600 that Taitsung of the Tang Dynasty greatly amplified the plan and instituted the system of preparing and selecting civilians by means of study and degrees, founding this system on the fact that education had always been esteemed.

At first the Manchu Monarchs were not favourably disposed to the system of examinations and frowned upon the literary hierarchy who claimed all honours as their right; but the next generation saw the advantages and necessity of the *concours* in preserving its own power.

Eventually this system of examinations became the only part of our social invention not to be paralleled in one or other of the great western monarchies of past or present times. Considered from the point of its machinery and the effect of its application, this system stands as a lasting testimony to the ingenuity of its founders. Of all the instruments of government which our forefathers have invented, developed and handed down to us, the old system of examinations ranks among the best. The underlying idea, the rules and regulations governing its working, the method of procedure and the precautions against injustice, all these unique features of that system have been so perfected that it is one of the great monuments of our civilization.

What it has done indirectly for China, perhaps, is much more than what it has done directly. It is believed with good reason that it was that system of examinations that had held China together as a unified whole, especially, in the matter of written language and literature—invaluable and unique assets of our country. Besides other benefits the unifying influence which the periodical pilgrimages of the educated class to the capitals of the Provinces and that of the nation, as required by the examinations, must have been tremendous. It is recognised to be the foundation upon which has been built China's hereditary democracy and the institution which has prevented the formation of arbitrary castes and classes, the absence of which is another of our most invaluable assets. Though unconsciously, it certainly helped to break down the barriers between the different classes of the people, the existence of which did so much harm to India, by opening the door of both the highest honour and real power of the nation to all people.

It helped to make China a comparatively peaceful country through all these centuries by offering an honourable career to the most ambitious, talented, or turbulent spirits in the country, which demanded all their powers; and by the time they entered upon office, their aspirations and powers became drilled and modelled into useful service and were ever devoted to the maintenance of the system they might otherwise have wrecked.

It helped to secure good officials, by limiting favouritism. China was the only country where one must possess a certain amount of general knowledge before he could take up office. It was the disregard and abuse of this system by selling office that brought about weakness. "The discipline of mind and memory which these examinations draw out furnishes a grade of intellect which only needs the friction and experience of public life to make statesmen out of scholars and goes far to account for the influence of the Chinese in Asia."¹

It operated as a counterpoise to the power of an absolute monarchy. Without it, the important offices would have been held by hereditary nobles or unscrupulous officials and the minor offices farmed out by thousands of imperial favourites, or members of "cliques." With it a man of talent might raise himself from the humblest ranks to the dignity of viceroy or premier. The system, therefore, introduced a popular element into the Government—a check on the prerogative of the Emperor or officials as to the appointment of officers—and served as a kind of constitution to the people prescribing the conditions on which they could obtain a share in the Government administration.

1.—Williams, "Middle Kingdom," Vol. I. p. 556.

In short it is recognized as one of the most stable corner stones of China's civilization which helped to make China a unified country with a homogeneous people. Its abolition during the Ching Dynasty, before finding a suitable substitute, has been regarded, with much reason, as the principal cause of the downfall of that Dynasty.¹

This system has done much in spite of the fact that the subjects studied in preparation for the trials contained little that was practical.

WHAT FOREIGNERS SAID.

It will be well to see what some foreign observers have said about this institution. We, therefore, quote below the statements of a number of the best foreign authors who have expressed any opinion on this subject.²

In speaking of the system of Chinese education and competitive examinations, Williams said: "It is remarkable how much it really has done to form, elevate, and consolidate their national institutions."³

"There can be no doubt as to the important and beneficial results it has accomplished, with all its defects, in perpetuating and strengthening the system of Government and securing to the people a more equitable and vigorous body of magistrates than they could get in any other way."⁴

"Educated men form the only aristocracy in the land. On the whole, it may safely be asserted that these examinations have done more to maintain the stability and explain the continuance of the Chinese Government than any other single cause."⁵

"It is the only one of their (Chinese) inventions which is, perhaps, worth preserving, and has not been adopted by other countries and carried to greater perfection than they were equal to."⁶

Dr. Martin calls the system of competitive examinations "the most admirable institution of the Chinese Empire," and "the masterpiece in that skillful mechanism, the balance wheel that regulates the working of the wonderful machinery (civilization)."⁷

"It leads to the selection of the best talents for the service of the public; but beyond this, its primary object, it exercises a profound influence upon the education of the people and the stability of the Government. It is all, in fact, that China has to show in the way of an educational system."⁸

"Their system of competitive examinations has, indeed, served the Chinese well. It is the brightest spot in the whole administration, being absolutely above suspicion, such as attaches to other departments of state."⁹

"But the value of the competitive examination system as an enduring source of natural cohesion and stability can scarcely be exaggerated."¹⁰

"The Chinese have been wise in thus giving the people a share in their own Government, nor is it in the way of pandering to democracy, but it is bestowed as a right on those who are fitted for it by an education. China has also by this admirable plan—admirable, taken as a whole, alike in its conception, development, and working—prevented herself from being overburdened by an aristocracy, with all its concomitant evils, which, had it existed, would, as in most European countries, have monopolized all that was worth having in Government."¹¹

"Yet, if there is one feature in Chinese polity that has been admired in Europe with unqualified approval, it is the public examinations through which every Chinese must pass if he would enter official life or would obtain a degree giving him the cachet of an educated gentleman. These precautions apart, the examinations fulfil the great boast of democracy, by providing an opening for talent in every grade of society, and have acted as a stimulus to education during at least thirteen centuries."¹²

"The system has been modified and improved during successive ages and has become one of the most remarkable and powerful organizations which this World has ever known."¹³

"In every case the institution of Public Service Examinations (which have long been strictly competitive) is the cause of the continued duration of the Chinese nation; it is that which preserves the other causes and gives efficacy to other operations."¹⁴

BAD POINTS OF THE SYSTEM.

Every one knows there are many defects and malversations in the system, some of which are inherited, but most of them rather prove the badness of the material than of the system and its harmonious working. What was bad was that the examinations had been applied to the test of classics and poetry alone, which fact tended to contract the mind to look upon such classics as containing all that was worth anything in the World. Liberal education for solving the problems of men was discouraged. The worst part was that the system influenced men to regard education for the narrow officialdom instead of for preparing men for practical, every

1.—J. O. P. Bland, "Recent Events and Present Policies in China," p. 75.

2.—These authors are selected from Dr. Morrison's Library.

3.—Williams, "Middle Kingdom," Vol. I, p. 521.

4.—Williams, "Middle Kingdom," Vol. I, p. 565.

5.—Williams, "Middle Kingdom," Vol. I, p. 565.

6.—Williams, "Middle Kingdom," Vol. I, p. 565.

7.—W. A. P. Martin, Hanlin Papers, 1880, p. 53.

8.—W. A. P. Martin, Hanlin Papers, 1880, p. 65.

9.—H. A. Giles, "The Civilization of China," 1911, p. 112.

10.—J. O. P. Bland, "Recent Events and Present Policies in China," p. 75.

11.—J. D. Ball, "Things Chinese," 1903, p. 268.

12.—R. S. Gungery, "China Present and Past," p. 545.

13.—John L. Nevius, "China and the Chinese," 1869, p. 65.

14.—Meadows, "The Chinese and their Rebellions."

day life. This attitude in turn caused industrial pursuits to be looked upon with disdain, as unworthy of a scholar.

Besides exterior imperfections, the system itself had many shortcomings. For instance, the testing by examinations, the fitness of the candidate for the duties he will be called upon to perform, although it is easy to measure in the case of technical or routine work, it is very difficult to ascertain when initiative, resourcefulness, good judgment and willingness to assume responsibility are in question. These are personal qualities which a written examination reaches but faintly.

But such personal qualities can soon be found out by the officers in charge of the departments of work. What is important is to find out the special or academic preparations and general capacity of men for the work of which they are still ignorant. If we get promising young men by fair examinations so as to be sure that they have the right education and then promote them as they show talent, we shall have no trouble in training up experts in all branches of the service. The average young man who can pass a properly outlined examination in literature and the useful sciences can generally be expected to "make good" when we open the door and allow him to make his own way up the steps of the service by showing his usefulness after he has entered.

This is the experience everywhere. In one profession after another the Western people have learned to train young men carefully in the theory and practice of their work, by taking them young and educating them for it as a distinct career. Sixty years ago, for instance, there were very few schools of applied science in the World, and the Western peoples were limiting their studies to Latin and Greek as we were studying classics, but now such schools are everywhere in the West, and they can hardly turn out students fast enough to supply the demand. In great private industries, employers do not seek mainly for persons already trained, but take promising young men with a proper education, promoting them as they show talent. This is the actual practice of the British Government, which has proven a great success. In fact the experience of the East Indian and Dutch Colonial offices has shown the advantages of a system which does not attempt to measure immediate fitness for the work to be done, but which merely tests the general education and ability of young men who are expected to make their own way up the steps of the service by their usefulness after they get in.

Since more government functions from now on will be of a scientific rather than theoretical nature, some impartial system of examinations will be more useful and more effective than formerly.

WHAT SHOULD BE DONE WITH THE SYSTEM.

But we must emphasize that what we advocate is only the restoration of the system of examinations itself, with some improvements to suit present conditions; but by no means the subject matters, such as eight legged essays or eight toned poetry, which were examined formerly. A system of examinations is complete by itself and should not be mixed up with the subjects examined, or the abusive uses made of the system. It resembles a utensil which can hold dirt or keep gold, it is like a ruler which can measure useless and useful things alike. What we want is to make use of the vessel or the ruler because we believe it is useful, not necessarily for measuring the old things, such as classics and poetry, but for useful purposes, such as for testing engineering, medicine, physics, chemistry, economics or law. And we may well point out here that the reason why the old system of examinations was discarded was not primarily because of the faults which were found in the system itself but rather because of the abusive use of the system in examining useless subjects. In other words, we have thrown away a useful and valuable vessel, because in it was held obnoxious substances; we have tried to break the ruler because it was used for measuring useless material. What we propose now is to clean the vessel of its dirt and discontinue abusing the ruler so that they may be again used for proper purposes.

THE CHINESE TELEGRAPH ADMINISTRATION'S WIRELESS TELEGRAPH STATIONS

The Wireless Coast Stations at Woosung and Canton, completed for working last summer, have now started regular service. Similar stations at Foochow and Hankow will be completed within a few months. The Woosung and Canton stations will be open for general public correspondence with ships at sea on and after the 1st of January, 1915. A typhoon-warning service, eventually also a press service, will be organized and inaugurated as soon as the necessary arrangements can be completed.

The Coast stations are all of the same construction, and the oscillating power in the antenna radiating the waves, by means of which messages are exchanged, is 5 kilowatt (about six and a-half H.P.) with a current of 32-38 Amperes. As the stations are fitted out each with two masts of a height of 200 feet this antenna power gives the stations a range of 700 nautical miles by day and at least 1,300 nautical miles by night, and they are thus able to exchange messages with one another and with all ships in Chinese waters.

The stations are fitted out with a 28 H.P. Benzine-Motor driving a dynamo and supplying the necessary current for charging an accumulator-battery from which the current is then taken for driving the transmitting machinery. A "Converter"

As stated before, the system itself represents such a perfect piece of organization for the execution of the work for which it was adopted, that it must have taken the best mind of centuries to have perfected it to such an extent. Its methods of admitting candidates, its means of copying and re-copying the examination papers by independent clerks for guarding against favouritism, its other means for preventing fraud, all of which like the solid material of our old structures, are still upright and strong, in spite of age and neglect, and, with a little improvement, can easily be used for modern purposes.

We say improvement, for we should not simply make servile imitations either of our forefathers or foreigners. We need to adapt things to our use. We want to make improvements and purge the system of its defects and render it more productive of good results and more serviceable for present day purposes. The system as we found it in the latter years of the Ching Dynasty was not the system as originally invented. Our forefathers had already made many changes. So we should also do the same in the right direction. Indeed, no system is perfect. There are bound to be loop-holes and drawbacks. What is important is to do the best we can, and not to be discouraged by shortcomings. What is needed in China are builders and improvers and not destroyers.

But before we decide to adopt any system of examinations, we must make a thorough study of the problem first, so as to be able to improve the old system to meet our present day requirements. In so far as this is a fundamental question which has an immediate and lasting effect upon our government and our nation we must not go at matters haphazardly. In fact, we should leave no stone unturned in order to find out what was good as well as what was bad in the old system and also to ascertain what should be done to meet modern conditions. The result of the Civil Service Systems of England, France, America and Prussia have been uniformly beneficial and proven to be most instrumental in improving the efficiency of their government administration. Such systems have been largely based upon competitive examinations and in so far as in all these countries the result has been uniform,—a conviction that such a system of competitive examinations, so far as it can be employed, gives the best method of ascertaining the qualifications of candidates for government employment, we should extend our inquiry into these countries. To secure as adviser the services of a faithful Westerner who has plenty of practical experience in the administration of the civil service, may help matters a good deal. Since they have copied the idea from us and they have tried the system for modern purposes, the changes which they may have made in our old system should prove of great value to us for our present purposes.

The above are but some brief suggestions. In order to work the details out for putting these suggestions into effect, more careful study should be made. Experience both in our country and elsewhere seems to show that a workable commission consisting of learned, honest and practical men should be appointed to inquire into and report on the matter before final steps may be taken.

By reading this paper some may call me radical, others may call me reactionary, while still others may judge me in a still different light. Whatever the judgment may be, it is my conviction that in order to improve the government service, experts must be trained up and employed under proper control, offices must be made more permanent, government employment must be open to all on an equal basis, selection must be made by merit. Before making these reforms, effective and impartial examinations must be held; and to insure that the examinations will be effective and impartial, our old system of competitive examinations and the Civil Service system of other countries will serve as a good basis to work out some more perfect and practical scheme. I wish only to further emphasize that in seeking to solve such a fundamental problem, we must take long views, and not allow ourselves to be overwhelmed by the clamor, complaint or enthusiasm of the moment in which we live.

run by this battery will supply an alternating current of 500 cycles per second, which is stepped up to some 10-12,000 Volts and used for charging the large condensers producing the electric oscillations and waves. The frequency of the oscillations being changed according to the wave-length can be varied between 100,000 and 500,000 per second and thus produces waves with lengths between 3,000 and 600 metres. The sparking in the spark-discharger takes place with a frequency of 1,000 per second, whereby is obtained that the signals are received by other stations as a fine musical tone that will cut through the so called "statics" or electric disturbances in the atmosphere, even when these are considerably stronger than the waves sent out by the stations. The receivers of all the stations can pick up waves of all lengths between 300 and 4,000 metres, and will transform the received waves into an audible sound heard by the operator in a head-gear telephone.

The stations are manned by a Chinese staff educated by foreign experts in the Peking College of Communications. The Woosung Station will be open for day-and-night service, and the Canton station will be open from 8. a.m. to 10. p.m. The stations are supervised by managers with 6-8 years' practical experience in wireless work, and should lend themselves to a satisfactory service as long as no interference is experienced from foreign men-of-war in Chinese waters and foreign wireless stations illegally established on Chinese territory.

OPTIMISTIC REPORT ON CHINA'S INTERNAL CONDITIONS.

American Association Criticises Japan in Manchuria.

China's financial condition was declared to be better than ever before and the government of Yuan Shih-k'ai was given full credit for having brought this state of affairs about in the report of the American Association for China read at its recent annual meeting in Shanghai.

President W. S. Emens presided at the meeting which was largely attended. The report of finances of the Association made by Mr. J. W. Gallagher, Hon. Treasurer, was approved as was also the report of the Executive Committee for 1914 in which various matters regarding conditions in China with especial reference to American trade were thoroughly discussed. Several recommendations were made and among them one that the new Commercial Attache be stationed in Shanghai rather than in Peking.

Election of a new Executive Committee was then held and resulted in the following being chosen, the first six being re-elected: Messrs. S. Fessenden, W. T. Findley, J. W. Gallagher, C. S. F. Lincoln, W. H. Lunt, W. A. Reed, C. C. Baldwin, J. J. Connell, O. H. Ritter, J. C. Shengle and James B. Davies. The election of officers was as follows: President, W. A. Reed; Vice-President O. H. Ritter; Secretary, James B. Davies and Hon. Treasurer, J. W. Gallagher.

The report of the outgoing committee is in part as follows:

Your Committee has the honor to present the following report for the year 1914.

The Committee which you elected at the last annual meeting has served throughout the year with but one change in its personnel. Mr. W. H. Dietrich upon leaving Shanghai in September was compelled to resign, and his place on the Committee and as Treasurer was filled at the Committee's invitation, by Mr. J. W. Gallagher.

We have to record with deep regret, the death this month of Hon. W. W. Rockhill, formerly U. S. Minister at Peking. His valuable services in that important office and his aid to our Association will long be remembered by us. Mr. Rockhill had been an honorary member of the Association for nearly fourteen years—since April, 1901.

We have added five new members to our resident membership during the year but the Committee feels that in our growing American community this represents but a small fraction of those who might join if a little personal solicitation were made.

Our present membership stands at:—Honorary, 2; Resident, 102; Non-Resident, 73.

Your Committee has been actively engaged during the year in efforts to bring before the Department of State and Congress the desirability and urgency of purchasing the site now occupied by the Consulate, Court and Post Office. In these efforts we have had the valuable assistance of our Consul-General. We learned that everything possible was done at Washington to secure favorable action when the Appropriation Bill for the Diplomatic and Consular Service was before Congress. In the form in which this bill passed the House there was no provision made for Consular premises at Shanghai, but when it was reported to the Senate by the Committee on Appropriations it contained a Senate Amendment appropriating an amount for the acquisition of Consular premises at Shanghai. The Senate, however, struck out a number of appropriations which the House Bill carried, among others the acquisition of Embassy premises at Mexico City, Tokio and Berne, Switzerland. When the Bill finally got into Conference, a compromise was reached by which the appropriations for the Embassy premises of Mexico City and Tokio were adopted and the appropriations for Berne and Shanghai were abandoned.

Further efforts have since been made by your Committee and it is hoped that the present Congress will have passed the necessary appropriation for Shanghai before its adjournment at the end of what must necessarily be a comparatively short session.

During the year under review there has been very little encouragement for the American business man in China. So far as China is concerned a much more optimistic view of her progress and present state in finance and governmental activities must be taken, than could have been held a year ago. Then the country was just recovering from a revolution and the defeated rebels were believed to be planning another outbreak. Owing to the large stocks of goods held at all of the treaty ports the movement of which was rendered impossible by the disturbed state of the country and the inability of the Chinese to finance purchases, commerce had come almost to a standstill.

This condition continued almost until the outbreak of the war in Europe, at the beginning of August.

At first it was expected that the war would bring about the stoppage of shipments to China. This would have been to the advantage of the merchant so far as the clearing of his stock was concerned. There has been however but little interruption in the traffic between American and

British ports and China. As a result of the war the export of China produce came temporarily to a standstill. This situation has eased somewhat and some exports are going out in fair amounts but in some instances at quite a reduction from normal prices. The export of Chinese produce to the United States is a subject which at the moment presents new and interesting features created by the war in Europe, which has temporarily at least closed important markets, and the opening of the Panama Canal.

IMPROVED STATE OF CHINA.

Turning to China, we find a much better state of affairs. The Salt Gabelle of which so many were dubious, has met not only the interest charges against it but has returned an excess of several millions which can be applied to meet deficits in other funds, due to the partial stoppage of commerce. Purely governmental finance has also shown great improvement and the provinces are now contributing to the central government in steadily increasing amounts, so that the time is in sight when China's finances will be on a footing where no further loans will be necessary for administrative purposes. Not only has the Government been able to effect considerable economy in its own inner circles, but there has been improvement made in the Provincial Administrations. The relations between the Central Government and the provinces are gradually being adjusted.

Yuan Shih-k'ai has proved his ability and it is now appearing that the councilors surrounding him are men who have the welfare of their country and people at heart and are doing everything possible to promote the economic and social welfare of the country. Therefore it would not seem to be beyond the realm of probability that unless outside influences disturb China, her advance in all material lines is assured. This has a most important bearing on the question of continuance of business as those who have passed through the depression caused by the Revolution and the late rebellion will admit, and its influence on the future expansion of business is no less great as the purchasing power of the people greatly increases in every succeeding year of peace.

The situation for increase of trade therefore is satisfactory, but as for the increase of the trade of the United States—that is another matter. That the Government in Washington is taking a serious view of foreign trade is evidenced by the recent appointment of commercial attaches, including one to China, Mr. Julian H. Arnold, for many years in the consular service. The outcry against "dollar diplomacy" started in the Roosevelt administration. It was originally directed against those who were alleged to be trying to grasp the trade of various South and Central American republics, by securing control of their resources through loans on advantageous terms, with the connivance of corrupt officials of the weaker countries and it seems to have been continued early in the present Administration not only to include business of that nature but to apply to merchants like ourselves whose interests and efforts are for a perfectly legitimate expansion of American trade.

This was shown in the statement of one of the diplomatic officials now in the Far East who said that the American business man must stand on his own feet and not expect the Government to go around the world waving a big stick whenever an American dollar was in danger. This statement was a reflection of the general attitude in Washington, but that view has been largely modified by the necessity for commercial expansion and the recognition of the fact that the prosperity of our people is in a large measure dependent upon the activity of the American merchant in foreign lands.

Therefore the appointment of Commercial Attaches is most encouraging as it gives the man in foreign lands a court of first instance to which he can present any difficulties arising with a possibility of having them heard and intelligently reported on to Washington, whereas direct appeals or those made through houses at home are regarded askance, as being prejudiced with self-interest. But the location of this attache in Peking we believe is a serious mistake. Shanghai is the proper place, for here the bulk of the business of China is done, and not at Peking. The commercial attache should be here and immediately accessible to the merchants in whose interests he is working. The value of personal contact cannot be over-estimated by the merchant.

JAPAN AND THE CLOSED DOOR

Turning now from trade in general to some particular considerations—what is the outlook? American cottons formerly held a premier position in Manchuria. Under Russian occupation, every nation stood on an equal footing in Manchuria. The same duties and charges were assessed against all and facilities for distributing goods and doing business in general were satisfactory. Now it is all changed. Under Japanese administration, no chance to advance its own trade is overlooked and to competitors the

means taken appear to be a departure from fair trading. In fact, they constitute a most serious violation of the open door principle on which the diplomacy of the United States in China is based. Japanese competition takes the form of a system of rebates not only in freight and steamer rates, but in remission of duties and charges which are assessed against all other nations. In addition to this many forms of petty annoyances have been worked out for the non-Japanese trader, and the imitation of established trade-marks is common.

Now that the Japanese are in Shantung, not the mere foothold that the Germans held at Tsingtau, but with an apparent determination to dominate the Province, the same tactics may be expected, since it would be exactly in line with the course employed in Korea and Manchuria. With Dalny on the northern promontory and Tsingtau on the Southern, Japan has secured a potential control of the trade of North China from the Russian frontier to the Yangtze, upon whose valley her traders have long cast covetous eyes. In this connection it will become apparent that not only ourselves, but other nationalities, face a loss of trade.

In iron and steel products conditions are on a different basis but scarcely less disadvantageous to the American. Here also the open door is largely a myth for even with open bidding on railway materials, rails and rolling stock, bridges and the like, the specifications are such as to give European competitors an immense advantage. Unfortunately there is no international standard.

The policy of the United States government in discouraging the investment of American capital in Chinese railways and in loans to the Republic has been detrimental to our merchants, but as the administration gains a clearer view of the situation in China and begins to recognize the things that must be done if the United States is to share in this vast trade area, there are possibilities of some modifications of this policy which is believed to have been put forth without sufficient investigation and, at that, on sentimental grounds. This Association should use every means in its power to awaken the Government in Washington through whatever means it can find, to the necessity for a more vigorous policy in China to secure for us and to hold open when secured as liberal advantages for the extension of our trade as are now enjoyed by other nationalities.

A potent element in securing the sales of their product in foreign countries that is often overlooked by the manufacturer at home is the placing of his agencies wherever possible in the hands of Americans. As it is now, some products that might be enjoying a wide field are now being restricted by being in the hands of those who—other considerations being equal—naturally prefer to promote sales for their own nationals. Efforts to bring this home to the United States manufacturer should be made, as he stands a chance of having his product blanketed by the agency being in the hands of one who holds it merely to prevent competition with goods made by one of his own nationality.

America's work for China is now being extended in two widely separated fields. One is in the development of the petroleum deposits in Shensi, and the other the Hwai River conservancy project. In the former, the Standard Oil Company has already begun drilling and the progress of the work whose successful conclusion means so much for China, is being watched with keenest interest. If successful, the industrial problems of China will be nearer a solution than ever before and the immense stimulus which cheap and easily transported fuel always gives to manufacturing, should bring about an immense increase in every line of industry.

Regarding the Hwai River project, this is a plan to reclaim an area of land variously estimated at from 1,500 to 3,000 square miles (the latter estimate being that of the Shanghai Engineering Society) of land now worthless and to render immune from floods a further vast tract said to contain upwards of 17,000 square miles. The report of Colonel William L. Sibert, sent out to determine the feasibility of the project, is now in the hands of the Red Cross Society. Colonel Sibert refused to state his findings while in Shanghai, but as his anxiety seemed to those who questioned him, rather regarding the funds than the engineering difficulties, it is probable that the project will be put through.

Triangle Mesh Wire Concrete Reinforcement

Since the introduction of Triangle Mesh Wire reinforcement into the Far East by the United States Steel Products Company, its use in concrete construction has become so widespread that the company now carries large stocks in hand at Shanghai, Hongkong and Dalny, from which branches immediate shipments can be made. The popularity of this material is due to its great convenience as it comes in long rolls and is especially adaptable to the reinforcement of floors and the construction of columns, its hinge joint construction making it peculiarly well fitted for the latter service as it can be folded into column shape without bending the wires.

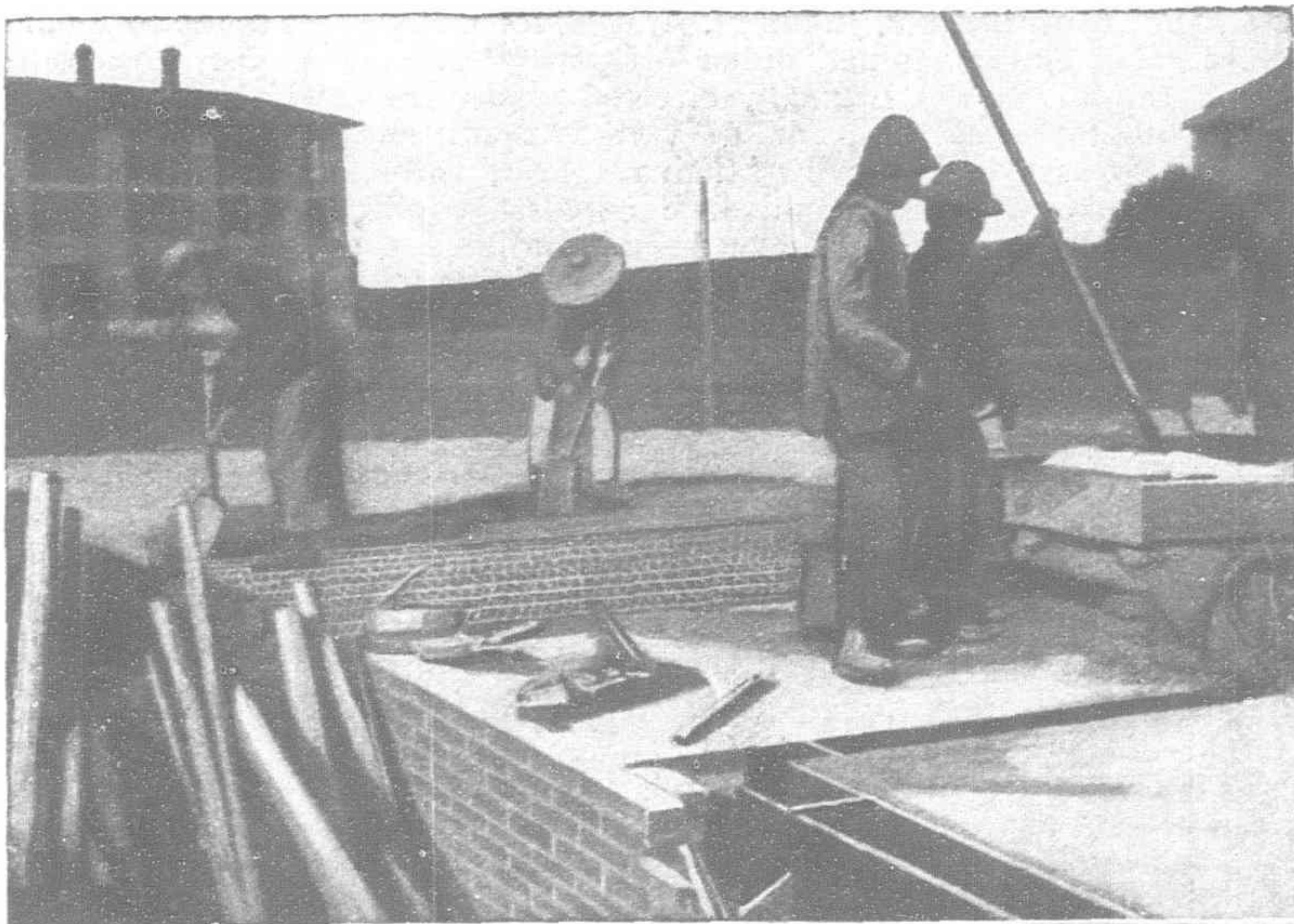
Triangle Mesh Wire Concrete Reinforcement is manufactured of hard, cold, drawn steel wire with a tensile strength of 85,000 pounds per square inch, and an average elastic limit of 50,000 pounds per square inch, possessing from 25 to 60 per cent, greater tensile strength than any hot rolled products of a similar area, such as bars, expanded metal, etc., there being no welds in any part of the fabric; the maximum strength of the material is conserved by the process of drawing and the possibility of flaws is entirely eliminated. Furthermore, it is of a truss form of construction, which in providing one of the best possible mechanical and adhesive bonds in the concrete, reinforces in every direction. Unlike any other form of mesh the cross wires assist the tension carrying longitudinal members, increasing the effective sectional area, enabling a lighter material to be used for the same resistance, as well as effecting a more equal distribution of the stresses. Being of hinge joint construction, the fabric is flexible and may be folded on any longitudinal member without bending the cross wires, consequently can be made to assume various conformations without producing any initial strain. The difficulty of maintaining equal spacing of bars, involving considerable labor, is entirely avoided, as in triangle mesh the cross wires accomplish this without labor and with perfect exactitude. Supplying it in continuous rolls of 150 feet, 200 feet and 600 feet long, no material whatever is wasted by longitudinal laps, thus effecting considerable economy, and it can be laid by unskilled labor, which is not true of other styles of reinforcement.

One of the latest uses of Triangle Mesh Wire is that of reinforcement for concrete roadways. The Calcutta Corporation, after an exhaustive series of experiments with all classes of paving material is now laying many of its roads in concrete with this form of reinforcement. By the use of Triangle Wire Mesh, the road engineers have succeeded in overcoming certain difficulties that were found in roads made of concrete without reinforcement.

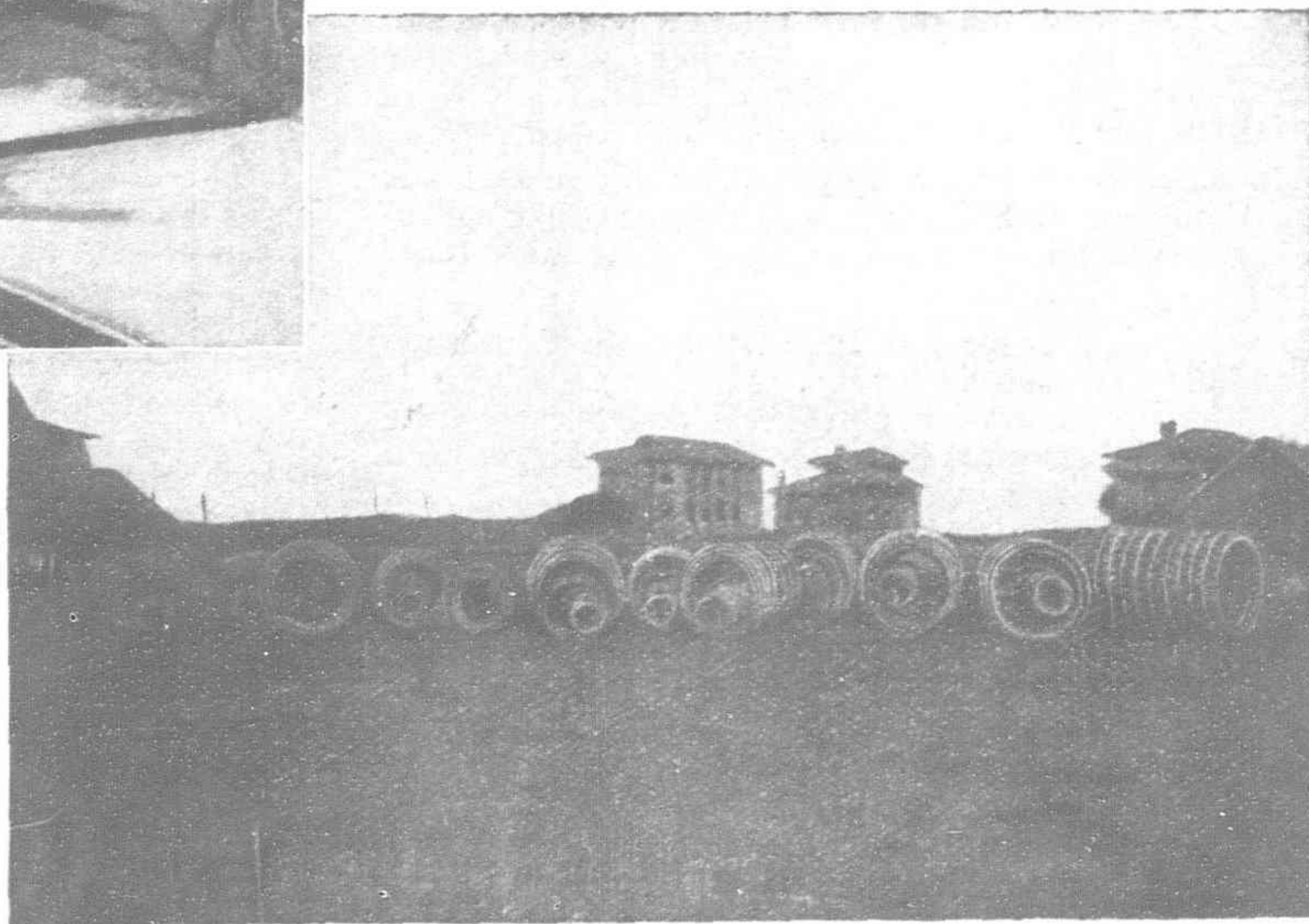
Architects and builders in the Far East and in India are using this Triangle Mesh Wire in almost all of the latest buildings, among which may be mentioned the Canton Christian College, the Hongkong Hotel, the Chinese Custom House of Honan Province, the main station building of the Burmese Railways at Rangoon and the Robinson and Mundy Building in the last named city.

The ease with which Triangle Mesh is put into place, requiring little skill or experience on the part of the laborer, is an especially attractive feature in the East where expert workmen in reinforced concrete are few and far between.

Architects and builders are requested to write the company setting forth any particular requirements of contemplated construction work, whereupon the company's experts will advise them as to the proper material.



Canton Christian College
Laying Floor Slab, Faculty House, with Triangle
Mesh Concrete Reinforcement



Canton Christian College
Showing Rolls of Triangle Mesh Concrete Reinforcement

SHANTUNG SALT



A Typical Chinese Coastal Salt Marsh and Evaporating Bed.

In the "Age of Wars," Shantung was designated under the appellation of Ch'i when the Salt Administration was for the first time promulgated by Kuan Chung, the famous Chancellor of the Province. In the Tsing Dynasty, it was placed under the jurisdiction of Changlu Salt Commissioner, and remained in that condition until the earlier stage of the Taokuang Era, it being then allowed to manage the administration independently.

The district wherein the manufacture of salt is extensively going on in the Province is the region along the mouth of the Yellow River as well as that around the Kiaochou Bay, Yungfu, Tengning, Wangkang, Kuantai, Hsiwei, Fukuo, Shihho, Yungli and Taowei being the most noted places for the production of salt. Besides, there are salt lakes at Tsaochow, Tungchang, Tsining and Tsinan.

Despite stringent measures adopted by the authorities, the local people were in the habit of unlawfully manufacturing salt from ancient days. The illegal practice has become so general among them since the establishment of the Republic that at Tungchang alone upward of two million piculs of salt is privately manufactured annually.

The jurisdiction of Shantung Government Salt District comprises the whole of the Province, Hsuehchow in Kiangsu, Hsiuehchow and Woyang in Anhui, and Kueitehfu in Honan. During 1912 23,700,000 piculs of salt were manufactured in Shantung (in view of unlawful production of salt, the actual amount of consumption is estimated at 2-3 of the above figure) while Hsuehchow forwarded nearly 800,000 piculs, Hsiuehchow and Woyang about 320,000 piculs, and Kueitehfu about 800,000. It is forbidden to ship the output to any district under the jurisdiction of other provincial authorities, unless instructed by the Financial Department.

The rules and regulations formed by the Government to supervise and control the manufacture of salt were strict and complicated. But the illegal practice having grown so rampant among the local people since the advent of the Republican system, the sale of Government salt was reduced to such a degree that many legitimate salt merchants were forced to close their stores, their fortune being wrecked by the unlawful practice of these dishonest salt producers. This state of affairs made the government take steps and institute a reform.

The innovation provides for the establishment of the Office of the Salt Commissioner at Tsinanfu under the direct control of the Financial Department, by appointing an official of the 1st rank as the Commissioner. The Salt Revenue Offices are established at Wangkang, Kwantai, Hsiwei, Fukuo, Shihho, Yungli and Taowei to superintend manufacture, and under these offices are established Inspection Bureaus at Shihtsun, Huangtaichiao, Tehchow and Cheyuan to examine the transportation of salt.

Every district throughout Shantung is annually allotted with a certain number of salt warrants (*Yenpiao*), and required to

bring up the sale of salt within its area to the allotted amount of warrants, any district failing to satisfy the requirement being punished while one disposing of more than the allotment is to be supplied with more warrants. It is said that during last year, the Government issued 600,000 warrants in all, Kuping Tls. 4.20 being charge on each warrant that has the license of selling 395 catties of salt.

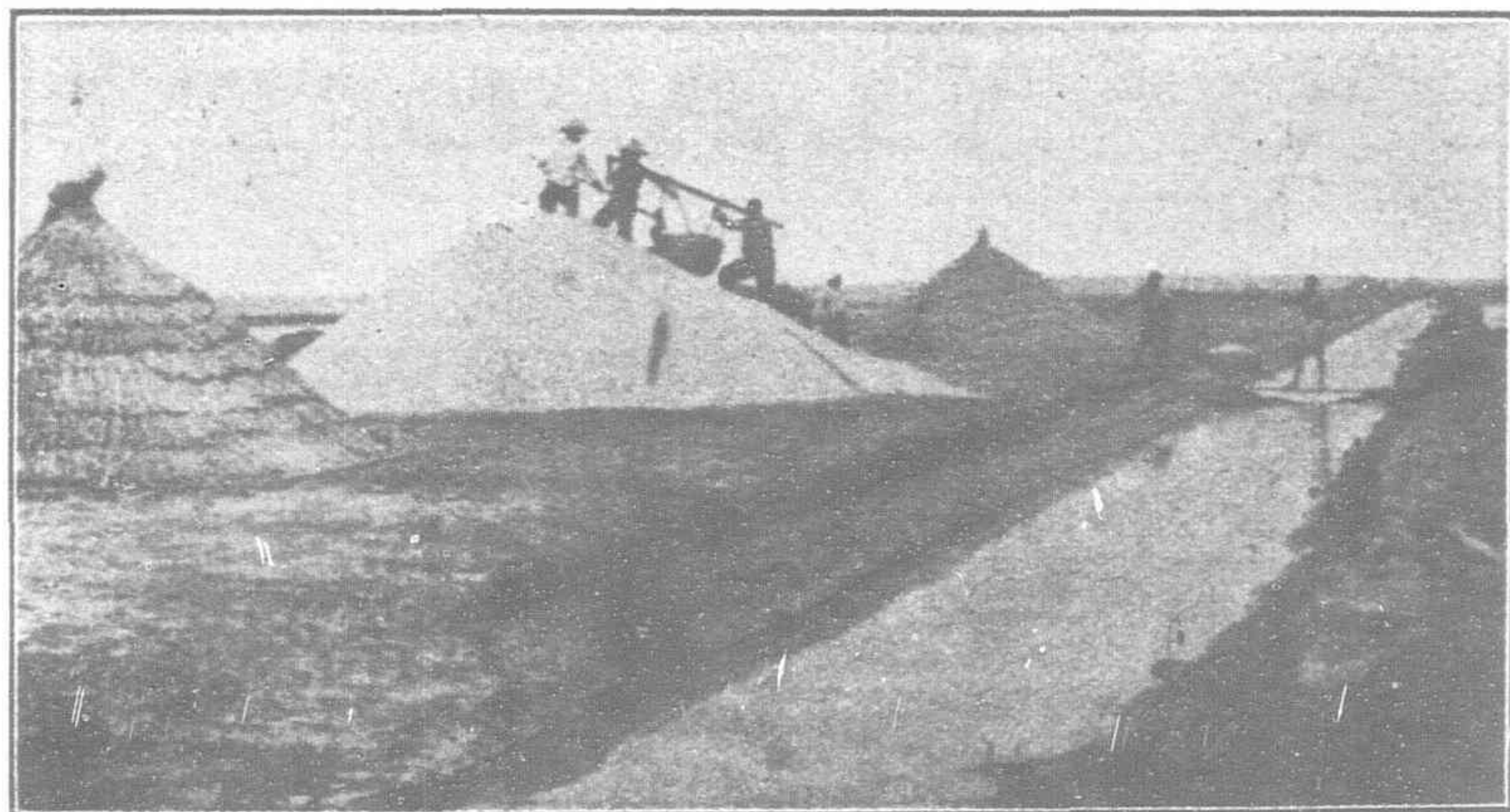
At Tenghsien and Ihsien licensed salt merchants having been financially crippled since the establishment of the Republic, the Government undertook to handle salt directly, and so the said two districts are now under the system of a pure government monopoly. In other districts many salt merchants were likewise declared insolvent owing to the depression of business manifested since 1911. For a while, the saline supply was looked after at some districts by local officials, but during the latter part of the following year salt merchants in these districts combined and organized a company for the purpose of transporting and selling government salt. The combine being duly sanctioned by the Salt Commissioner, the business was carried into effect on June 1st, 1912. The company divides the districts into the three following sections for the sake of convenience to carry on its business, the figure found hereunder annexed after the name of each district being the number of salt warrants allotted:—

THE SOUTH-EASTERN SECTION.

Lintsing	2,833
Taokuan	4,167
Weih sien	3,252
Changlê	2,862
Itou	6,057
Linchü	4,000
Hsintai	2,958
Ishui	2,548
Mengyin	800
Lêan	1,616
Jechao	567
Pohsing	1,683
Chüchow	2,453
Fanhsien	1,507
Chaocheng	3,000
Shouchang	2,500
Yuncheng	4,166
Hochai	5,000
Total	36,186

THE NORTH-WESTERN SECTION

Tehchow	4,096
Yücheng	2,016
Ngenhsien	3,938



Salt Fields.

Wucheng	2,584
Linhsing	5,167
Chiuhsien	1,964
Tangyi	2,935
Huahsien	1,913
Kuanhsien	3,667
Total	27,980

THE SOUTH-WESTERN SECTION.

Kuancheng	1,352
Tingtao	1,558
Chengwu	1,750
Chinhsiang	2,333
Total	6,993

With the exception of the above enumerated thirty-one districts and the two others previously referred to, where the Government is directly dealing in the business, in the rest of the places under the Shantung Salt Administration licensed salt merchants are monopolizing the trade.

Salt produced at the mouth of the Yellow River is sent to Tsinanfu, Chengpei and Huangtaichiao by the Siaotsingho and then distributed to various places. The cargo sent to the interior of Shantung is called *peiyün*—the Northbound, while that transported to Honan, Anhui and Kiangsu is called *nanyün*—the Southbound.

In former days the Southbound cargo was shipped by the Yellow River and the Grand Canal, but since the construction of the Tsin-Pu Railway, it is sent to Lëkow from Huantaichiao by taking the advantage of its branch line, and then forwarded to its destination by the main line. That to be sent to Kueitehfu is shipped to Tsinan by the railway via Yenchow, and then transported by carts farther on.

The price of salt at the place of production is about \$0.20 per 100 catties, and freight on it from the river mouth to Huantaichiao is something like \$0.15 per 100 catties. This is sold at Tsinan at \$1.10—1.70.

Sometime ago the President issued a regulation for the salt gabelle. As it is a sort of law, the regulation should have been approved by the National Assembly, but as the Parliament was then suspended an irregular step was taken and it was issued in the shape of a provisional regulation by means of a Presidential Order. The Regulation contains 13 articles, of which five are translated and given below.

Art. 1. Provisions contained in the present Regulation shall be applied to all the salt producing districts in the Chinese Republic, except Mongolia, Tsinghai, Hsinchiang and Tibet, which being considered to be the territory under special conditions are placed outside of the scope of this Regulation.

Art. 2. Salt producing districts and those consuming salt shall be divided into the two following Sections:—

The first Section—Chihli, Shansi, Kansu, Shensi, the north of the Hwaiho in Kiangsu, Kirin, Hailungkiang, Honan, and Kwanpei salt consuming districts in Anhui.

The Second Section—Salt producing districts in the south of the Hwaiho in Kiangsu, Chekiang, Fukien, Canton, Szechuan and Yunnan, and the salt consuming districts in the south of the Kwanho in Anhui, Kiangsi, Hupeh, Hunan, Kiangsi and Kweichow.

Art. 3. The rate of the salt gabelle shall be \$2.50 per 100 catties. Prior to January 1 of the 4th Year of the Republic, the old scale of the gabelle shall be maintained in the Second Section, whilst in the First Section the rate of \$2.00 per 100 catties shall be charged.

Art. 7. Private manufacture of salt is strictly prohibited. The offender shall be dealt with in accordance with the provision of the Regulation.

Art. 12. The Regulation shall be enforced in the First Section commencing from January 1, the 3rd year of the Republic, and in the Second Section from January 1, the 4th Year of the Republic.

If for any reason it is found impossible to have the Regulation enforced on the date stipulated upon the enforcement may be postponed on the application of the Salt Commissioner of the district, provided the matter is approved by the Financial Minister.

From the above, Shantung belongs to the First Section, and therefore the Regulation was to be enforced from January 1 of the present year, but no such report has been received. At present, Tengning, Yungfu, Wangkang, Hsiwei, Kwantai, Fukuo, Shihho, Yungli and Taowei are known as districts where salt is manufactured in the Province, whilst "pond salt" is produced at Tsaochow, Tungchang, Chining and Tsinan. The total of official salt produced annually in Shantung is estimated at about 250,000,000 catties. The product is forbidden to be carried into other salt districts unless specially permitted by the Financial Department.

Beside the places above enumerated, there are districts in Shantung, where people are allowed to manufacture salt privately without paying tax to the Government. These consist of Fushan, Penglai, Ninghai, Wenteng, Jungcheng, Haiyang, Laiyang, Chihsia, Hwanghsien, and Chaoyuan—the above 10 districts found under the jurisdiction of Tengchow,—Chang-i, Yehhsien and Pingtu—the above 3 districts formerly found under the jurisdiction of Laichow,—Kiaochou, Chimo and Kaomi—the 3 above districts formerly found under the jurisdiction of Kiaochou,—Chucheng and Jihchao,—the above 2 districts formerly found also under the jurisdiction of Kiaochou.

The franchise was granted during the Sung Dynasty to the eighteen districts aforementioned on the memorial of a certain Su Chang-kung, who pleaded the Throne to exempt the local people from taxation on salt manufactured in consideration of their extreme poverty and the barrenness of the soil. During the 8th year of Yungcheng in the Tsing Dynasty, however, a nominal tax was made to be levied, as a sort of a surtax on land, the amount being one per cent. on every tael of land tax. Free manufacture and disposal of salt at the market price, regardless of the official price, was sanctioned, provided the sale was limited within their own districts. In other words, salt so manufactured was forbidden to be shipped to any place not treated under the special exequatur.

THE TE CHOW ARSENAL

The military arsenal at Te Chow was established in its present location in 1902, a large part of the machinery being brought from the old East Arsenal at Tientsin, which was partially destroyed during the Boxer outbreak and abandoned soon after. Te Chow is situated in Shantung Province, on the Tientsin-Pukow Railway, about 90 miles south of Tientsin, and although a fairly large city contains little of interest except the arsenal. This occupies very extensive grounds and numerous buildings, a majority of which are of European style, and is divided into the following departments: (1) The powder factory, including two acid-making plants; (2) the cartridge factory, in two divisions; (3) the projectile factory; (4) the general machine shop.

POWDER FACTORY

The powder manufactured here is a smokeless "cotton" powder, very similar to the old "poudre B," an early type of French smokeless powder. It is made by first treating clean cotton with mixtures of sulphuric and nitric acids in various proportions to produce soluble and insoluble guncotton. The two varieties are then mixed and treated with ethyl-alcohol, which gelatinizes the mixture, the resulting compound being then rolled between hot rolls into thin, semi-transparent sheets, which are cut up into small flakes (or leaves) by machinery. A small amount of graphite is added in the driers and the powder is then ready for proving.

At Te Chow two strengths of powder are produced; a low-pressure powder used for the "old model" (7.9) cartridges and for charging shrapnel shells, and a high-pressure powder used only for the Chinese Mauser (6.5) cartridges. As only about 170 pounds of the former and 100 pounds of the latter are produced per day, a large amount of imported powder (principally German) is also used in the cartridge factory. The mixing and treatment of the powder constituents appear rather inaccurate, and the finished powder receives only the firing test for pressure and velocity. During the test the powder is often left dangerously damp, to insure sufficiently high pressure. If this results in too high pressure, the batch is again run through the driers. There is no expert European supervision, and carelessness among the workmen results in not infrequent accidents and explosions.

Most of the machinery in the powder mills has been built in the works, including all the mechanical cotton washers, mixers, and centrifugal driers. A large cotton-cleaning machine is from a Manchester, England, maker, and a few of the machines for rolling and cutting up the gelatine sheets have been imported from Krupp of Germany.

In connection with the powder factory a sulphuric and a nitric acid plant is operated; 2,700 pounds per day of sulphuric acid are produced by the chamber system, and about 1,600 pounds of nitric acid per day are distilled from iron retorts.

CARTRIDGE FACTORIES

There are two separate and distinct cartridge factories. The 7.9-millimeter factory was built in 1902, and the 6.5-millimeter factory at a later date. Each factory has its own brass furnaces, annealing ovens, and rolls, and each its own machine shop for making tools, dies, etc. Each factory employs approximately 300 hands, and each produces 25,000 complete cartridges per day of nine hours. However, as the Chinese military authorities have decided to discontinue gradually the manufacture of the 7.9-millimeter rifle, the output of 7.9 cartridges will also be diminished, and some of the machines in that factory will be altered to make the small-caliber cartridge.

Most of the cartridge-making machines and machine tools in the older factory bear the name of Ludwig Loëwe, of Berlin. The equipment of the newer (6.5) factory is principally labeled, "Schuchardt & Schutte, Berlin." A number of machines in each factory have been built in the general machine shop attached to the arsenal, such machines being usually merely copies of imported machines. These homemade machines include 25 or 30 of the small presses used for punching disks from bars and for drawing out the brass cartridge case, 6 double machines for reducing the neck of the shell, and several machines for closing the neck upon the bullet. One type of locally built machine shows some originality. This is a small furnace for annealing the completed shell before loading, in which several Bunsen gas jets are directed upon a revolving table which is fed and emptied automatically.

Each factory has three cartridge-loading machines, of which only one was imported, the other five (exact copies of the first) having been built in the local shops. The original machine is of Japanese manufacture and a copy of a German model, but the homemade machines appear quite as good as the original, and are surprising evidence of the mechanical skill of Chinese workmen, not only because of the complexity of the machine but also because of the perfect accuracy and fine adjustment essential to its successful operation. Each of these machines turns out 55 loaded and capped cartridges per minute.

The most notable deficiency in both factories is the lack of conveying apparatus and of machines for gauging the cartridge case and finished cartridge. There are automatic weighing machines which reject overweight and underweight finished cartridges, but aside from these all gauging is done by hand, about 10 per cent. of all the employees in the factory being so occupied. Bars are conveyed to and from the rolls on hand trucks, but all smaller materials are carried in boxes from machine to machine by coolies. Moreover, some rearrangement of the machines is needed to permit of a steady flow of materials through the factories. The chargers (or clips) for both sizes of cartridges are filled by hand, and then packed by hand into pasteboard boxes before being cased. There is no heating apparatus in the factories, with the result that it was noted in February that some of the finer machines were running badly, owing to the oil thickening upon them.

Every part of a complete cartridge is manufactured in both factories. Copper primers are pressed and charged with fulminate; steel jackets for bullets are manufactured, and lead wire for the interior of the bullet is drawn from machines in the works. The cardboard boxes for packing the finished cartridges are made here, and even the cardboard is manufactured locally in the powder factory.

MACHINE SHOPS OF CARTRIDGE FACTORIES

As has been mentioned, each cartridge factory has its own machine shop, the machine tools being in the same room with the cartridge-making machines and almost as numerous. In fact, there are far more machine tools than would be required if they were used to anything like their full capacity. Ninety per cent. of these machine tools are lathes, of which about one-third (20 or more in all) have been built in the general machine shop of the arsenal. The remaining two-thirds bear the names of German makers or agents. All of these lathes are merely screw-cutting engine lathes, in sizes from 8 to 16 inches, none being equipped with any of the special features (such as taper or relieving attachments or even draw-in collets) which are usually found on tool-room lathes. The American type of tool post has been retained on the American lathes, and a uniform size of steel is used in making tools for them, but there can be no doubt that, in general, the open tool rest with three or four set screws is preferred by Chinese workmen, owing to the custom which prevails throughout China of making tools from various sections of steel, old files, etc. Most of the German lathes, as well as those built locally, are gap lathes, but it was noted that no work was being done upon them that could not have been done as well upon a solid-bed lathe.

In addition to the lathes mentioned, there are about a dozen other machines from American shops. These include six to eight upright drills in small sizes, two or three sensitive drills, several small shapers, and a very recently installed No. 3 universal milling machine. Throughout the entire arsenal there are no grinders of any kind, except the usual floor grinders and the roll grinders. Several machines especially designed for roll grinding have been imported from Germany, but these have all been set aside, and the work is now being done upon an extension-bed lathe from Edwin Harrington & Son, of Philadelphia, fitted with a locally built grinding attachment.

PROJECTILE FACTORY

Only one size and type of projectile is manufactured here—a 7.5-centimeter shrapnel shell. The foundry of this department has two cupolas, each with a capacity of 1,500 pounds of iron per hour; but as the maximum capacity of the molding and machining departments is only 150 shells per day, one cupola is more than sufficient for the requirements of the department. The character of the machinery and manufacturing methods in this department may be judged from the fact that 120 men are employed to secure the output stated. Brass patterns are used, four in a group, and there is a homemade machine for drawing the patterns, but the flask is filled and rammed by hand, two workmen taking 15 minutes to finish a mold. The core is made upon a brass tube, which is of sufficient length to project through the nose of the shell.

In machining the shell the first operation is to bore and thread the aperture for the fuse case. For this work plain engine lathes are used, the base of the shell being secured in an independent chuck in which the heads of the cap screws project an inch or more. The nose of the shell is then gripped in a chuck and the cylindrical part is turned in a lathe which has two connected tool posts, the rear one taking the finishing cut. The two grooves for the copper shell rings are cut simultaneously on a lathe with two connected front tool rests, and then the rings are hammered on; after this the shell is forced by a large press through a die which seats the rings. The last operation is to return the shell to the lathe and turn up the copper rings. Eight lathes are employed nine hours per day upon these shells, giving an output per lathe of only a trifle more than two shells per hour. Brass fuse cases are made in the same shop in which the shells are turned, five or six small turret lathes being used for that work. A single automatic would more than equal the combined output of these machines.

GENERAL MACHINE SHOP

The general machine shop includes a foundry, smith shop, boiler shop, and machine shop, and is maintained to repair and build machines in and for the arsenal. Some of the machines built here have been mentioned previously, and the director states that about 100 of the machines now in use in the various departments are of local manufacture. In addition to several presses and other cartridge-making machines, castings for shapers and small steam pumps are machined.

The foundry has two cupolas, each with a capacity of 2½ tons per hour; and the smith shop contains one small steam hammer and one new belt-driven pneumatic hammer of 100 kilos (220.46 pounds), from a German maker. The boiler shop possesses neither power machines nor compressed air, all plate cutting and riveting being done by hand, while plates are drilled, it seems, in the machine shop. However, it should be said that this shop is maintained only for making tanks, repairing boilers, and similar light work. In the pattern shop, likewise, there is not a single woodworking machine, not even a lathe; however, the Chinese workmen produce beautiful patterns, though the work proceeds slowly.

The machine shop has a fairly good equipment for general work, but no modern high-speed machine. Several upright drills and two or three small shapers are from American makers, but the larger machines are all of British origin. Two planers of good size and a couple of very large upright drills are from Scriven & Co., of Glasgow, while G. & A. Harvey, also of Glasgow, have supplied some large gap lathes and two slotters. Turret lathes, milling machines, grinders, and radial drills are conspicuous by their absence. Surprisingly few drawings are seen in the shops, as the workmen seem to prefer to take measurements from the actual parts which they are duplicating.

POWER PLANT

Power for the various shops is generated in 8 or 10 small units scattered about the works. The boilers are nearly all of the Lancashire type, and pressures of only 60 to 80 pounds are carried. The engines are all Corliss pattern, running non-condensing, and average about 100 horsepower. The largest of these, and the only compound, is one from the Vilter Manufacturing Co., of Milwaukee, which drives the machines in the powder factory, and is said to be very satisfactory.

A recently installed electric lighting plant consists of two 30-kilowatt direct-current dynamos, belt-driven by boiler-engine sets. The dynamos are of 225 volts, up to 134 amperes; and the boiler engines are of the Wolf type, the engine being mounted upon the boiler, which has the usual Wolf removable head and tubes. Dynamos and switchboard are from Siemens & Schuckert, of Berlin, and the boiler engines are from Heinrich Lanz, of Mannheim, Germany.

TSINAN ARSENAL

The Arsenal is situated 8 li north-west of the town. Work is carried on in eight departments, viz., (a) gun department, (b) cartridge department, (c) casting department, (d) forging

department, (e) rolling department, (f) powder department, (g) electric department and (h) carpenters' shop.

It may be said briefly that the Arsenal is able to make cannon, rifles and cartridges besides machinery, boilers, powder, electric lamps and batteries, etc., from a given pattern; but the work is rougher and not so neatly finished as that of Foreign firms. At present cartridges and powder are being manufactured, besides machinery for use in the Arsenal. The mining machinery at Tzu-ch'uan was supplied by the Tsinan Arsenal, also the bugles and manty of the arms used by the Shantung troops. They are also experimenting with the Mannlicher rifle, with a view to manufacturing it at the Arsenal, but it is not yet known with what success.

GERMAN STEEL WORKS IN SHANTUNG

For several years the German authorities have been keenly interested in the establishment of a modern steel works in Shantung, as an outlet for the rich iron and coal deposits located within their mining zone. The directors of the Krupp Works in Germany have taken the lead in the preliminary investigations and studies, as they believe rightly, that with adequate supplies of cheap raw material, and abundance of cheap labor, the products could be placed on the Chinese and Oriental markets at prices defying European and American competition. Japan, through its lack of iron ore deposits, is dependent largely upon China for its supplies, thus providing a market for large quantities of ore and pig iron.

It is reported that samples of the ore, analyzed 65 per cent. iron, 24 per cent. manganese, .03 per cent. phosphorus and .08 per cent. sulphur. The deposit is about 2 kilometers (1.242 miles) in length, and the veins from 25 to 50 yards in depth, with a heavy dip. It is estimated there are 100,000,000 tons of ore in the district.

The deposit is located on the Tiehshan (Iron Mountain) near the railway station of Chinglingchen. Another deposit exists at Sy-bau Mountain, near the railway station of Chang-tien. Large deposits of limestone, and a plentiful supply of coal are located within the regions embraced in the German mining rights.

Last year (1913) the Shantung Railway Company, having previously absorbed the Shantung Mining Company, determined to close the unprofitable Fangtze coal pit, and concentrate its capital and energies in the development of the rich iron deposits.

A director of Krupp's and two other German mining and steel experts made a special visit to China last autumn, for the purpose of conducting the final investigations for the exact location of a suitable steel plant. On the strength of their report, the board of the Shantung Railway Company in Berlin, at a meeting held early this year, voted to proceed at once with the scheme. The cost of the plant was estimated at Marks 10,000,000 (\$2,500,000 Gold) and it was resolved that the share capital of the Company should be increased by Marks 10,000,000, raising the total capital to Marks 70,000,000. It was also voted that for the first three years, a dividend of five per cent. should be paid out of capital on the paid up shares.

The works were to be erected between Szifang and Tsangkau, about 10 miles out of Tsingtau on the line of the railway, and provided for two blast furnaces with a daily capacity of 150 tons. The location of the plant at this point, within the leased territory, under German jurisdiction, was influenced by political and commercial reasons. The works would materially increase the earning capacity of the railway, as half of its revenue is already derived from the freight of coal from the mines in the interior to the port at Tsingtau.

ENGINEERING, FINANCIAL AND INDUSTRIAL NEWS

RAILWAYS

Lung-Tsing-U-Hai Railway:—The extension of the Pienlo Railway eastwards from Kaifeng has been completed as far as Kweiteifu and irregular trains run over a good part of the way. Regular traffic will begin at an early date. The distance from Kaifeng to Kweiteh is nearly one hundred English miles.

China's Railway Loans:—Most of the Railways under the administration of the Ministry of Communications have been built with foreign capital. The yearly amortisation and interest on these loans aggregate a considerable sum every year. With a view to maintaining its credit, the Ministry has met its commitments in respect of these loans with commendable promptitude.

The period that generally proves most embarrassing to the Ministry is, according to the "Peking Gazette," the one covering the months of September, October and November. Within these three months the total commitments maturing for payment reach the large sum of seven million dollars. In normal times it is not altogether easy for the Ministry to meet and pay this sum; but this year the latter has been seriously embarrassed on account of the outbreak of the war in Europe, disorganizing, as it has done, the financial market of the world and causing an excessive rise in the exchange rate.

Through the successful management of the railway affairs of the Government by the Authorities of the Ministry, all moneys due for amortisation and interest on these railway loans have been paid in full as and when the same became due. Moreover the working of the Kin-Han Railway has been so profitable that the Ministry was able in addition to paying the regular interest, to declare an extra dividend in connection with the Kin-Han Railway Redemption Loan issued as a gold loan in London some four years ago. The extra dividend declared for the past financial year was at the rate of \$1.479 per \$100—the highest on record. We understand that the declaration of this extra dividend has had a most favourable effect on Chinese railway credit in London, coming as it did at a time when other foreign securities have failed to yield their usual dividend to British bondholders. The Minister and the Vice-Minister in charge of railway finance are to be congratulated on the success that has attended the administration of the railways under their charge. The following is a list of the railway commitments paid by the Ministry during the months September—November.

The First Tsin-pu Railway Loan	£125,312.10S
The Second Tsin-pu Railway Loan	„ 75,187.10S
Loans from Shanghai and Hongkong Bank	„ 125,250
The Principal and Interest for Redemption of the Canton-Hankow Railway	„ 114,950
The Shanghai-Nanking Railway Loan	„ 77,192.10S
The Shanghai-Hangchow-Ningpo Railway Loan	„ 37,593.15S
The Kwangtung-Kowloon Railway Loan	„ 37,593.15S
Loan for Redemption of the Canton-Hankow Line	„ 22,554
Loan for Redemption of the Canton-Hankow Line	Y 77,000
Loan for Redemption of the Canton-Hankow Line	\$ 19,893

Bonus of the Loan for the Redemption of the Canton-Hankow Line „ 147,900

The aggregate sums mentioned above are £615,634 Yen. 77,000 and \$159,793. The sum total in Mex. dollars is approximately 7,000,000.

Railway Profits:—The Ministry of Communications has given the following account of its revenue and expenditure during this fiscal year:—

1. From the railway department its total receipts amounted to over twenty-seven million dollars and after deducting 15 million dollars for its expenditure, it yielded a net profit of twelve million dollars.

2. From the telegraph department the total receipts aggregated six million dollars and after deducting the expenditure of the said department, it turned out a net profit of two million dollars.

3. From the Post department the total receipts amounted to 4,500,000 dollars and its expenditure about five million dollars.

The Szechuan Railway:—Has been granted permission by the Ministry of Communications to establish a bank and a navigation company.

Railway and Telegraph Materials:—In view of the great amount of materials supplied to the telegraphs and railways in China every year, it is highly necessary for the responsible authorities to study carefully the economical use of the materials, the best way of their preservation, comparison of prices, the quality of goods, etc., so as to get the best advantage in the use of all kinds of materials. With this object in view, Mr. Liang Tun-yen, the Minister of Communications, has organized a commission specially for the study and experiment of railway and telegraph materials. Among the officials appointed to the Commission, are Mr. Lu, the Chief Technical Expert, Dr. C. C. Wang, Chief of the Railway Accounts Department, Mr. Yuan Ling, the Chief of the Department of Railways, and others.

Szechuan Railway Company:—A number of the shareholders of the Szechuan Railway Company have recently submitted a petition to the Ministry of Communications for the punishment of the officers of the said company on account of their misappropriation of funds. The petitioners complain that they are unable to get the principal and interest of their shares and the reason for this, according to the petitioners, is chiefly due to the corruption of the employees of the said company, who have misappropriated the funds of the company for their own use.

Tientsin-Pukow Railway, Northern Section:—It is stated from Peking that Great Britain has opened negotiations with the Chinese Government with a view to taking over the German loan interests invested in the northern half of the Tientsin-Pukow Railway.

Peking-Hankow Railway:—The Ministry of Communications has issued a telegram in connection with the payment of the interest and the profit of the Peking-Hankow Railway for the year 1913. In accordance with the regulations drawn up by the Board of Communications of the late Ching Dynasty, the

twelfth payment of the yearly profit of the Peking-Hankow Railway was due on October 19. The net profit of the line during the year 1913 amounted to \$4,833,151.52, one-fourth of which is divided among the shareholders. The amount to be divided among the shareholders is \$1,288,287.88. The division is to be made in proportion to the total amount of capital, which is Taels 58,000,000, i.e. \$1,479 for every bond. The payment of the interest and the profit may be obtained on the presentation of bonds at the agent's offices of the Railway in Peking, Tientsin, Hankow, Shanghai, Hongkong and other places.

New Russian Railway Concession in China.—(A Japanese view) "We are in receipt of news that St. Petersburg lately obtained from Peking the concession to lay a railway line between Aigun and Tsitsihar. Indeed, we are surprised that the Slavs should be able to be so active about extending their national pretiges in Northern China, when they are face to face in another direction with an incident which is a stake against the existence of their nation. Ever since they ceded to us the southern half of the Eastern Chinese Railway, they felt a great military uneasiness in Eastern Siberia and had to lay, for relieving their position, the Amur Railway. When this is completed, they are in possession of the four railway lines, which can co-operate like clockwork,—the Siberian Trunk line, Eastern Chinese line, Amur line and Ussuri line. And now comes another line, which connects the Amur with the Eastern Chinese line. Undoubtedly, this will greatly strengthen the Russian position in the Far East. Moreover, we may be able to obtain similar concessions in that part of Manchuria."

Kalgan and Sui-yuan Railway.—The construction of the Kalgan and Sui-yuan line is progressing rapidly. Some forty miles of the line to the west of Tatung have already been constructed and train service will commence on the 10th instant. On account of the European War, the work was in danger of being hindered. It is reported that a loan of \$300,000 was successfully negotiated with a certain Corporation which will be quite enough to supply four months' expenses.

Railway Conference.—During the month of December the Department of Communications convened a conference of railways in China in regard to traffic arrangements. In the conference the Peking-Mukden, Tientsin-Pukow, Shanghai-Nanking, Peking-Hankow and Peking-Kalgan Railways were represented. The conference was held at Shanghai. The representatives in attendance at the conference were:—

Peking-Mukden Railway:—Mr. J. G. Foley, the Traffic Manager; W. H. Steel, Deputy Traffic Manager; and Wm. Handersen, Chief Accountant. **Tientsin-Pukow Railway:**—T. C. Share, Chief Traffic Inspector and H. Brickner, Chief Accountant.

Shanghai-Nanking Railway:—J. D. Read, Traffic Manager, and E. R. Morris, Deputy General Manager.

Peking-Hankow Railway:—Wang Shih-yu (?), Chief of Secretariat of the Traffic Department, Ho Yung (?), the Traffic Manager, and Pai Lu-yi (?), Chief of the Accountants Section.

Peking-Kalgan Railway:—Chen Pin-lun, the Traffic Manager.

Canton-Kowloon Railway.—Mr. H. T. Foord has been appointed Engineer-in-Chief of the Canton-Kowloon Railway.

Electrification of Tokyo-Yokohama Line a Success.—The trial of electric cars on the new lines between the Tokyo Central Station and the New Yokohama Station at Takashimachō, which took place Nov. 20th proved to be very successful. The new traffic of electric cars will be opened from December 15th, between the new railway stations in Tokyo and Yokohama. This new service, however, does not mean that the steam trains between Tokyo and the present Yokohama railway station near the Benten bridge will be stopped altogether. The steam trains which are specially running between the two cities will be discontinued. The ordinary trains coming from Yokosuka, Kodzu or west of Yokohama will make stops at the present Yokohama railway station, which will continue until June, 1915. After June next year neither steam nor electric trains will come to the present Yokohama railway station until March 1916.

After December 15th the railway line between the new Yokohama central station, and the present one will become a single line. The road along the creek Sakuragawa from the Oye bridge to the Takashimachō station will be extended in width from the present 30 feet to 42 feet. The elevated line between the present station and the new Takashimachō station will be completed by the end of March 1916, and after that electric cars will run between the Tokyo Central Station and the present Yokohama station. The Yokohama station will be completed in June next year, and the present Hiranuma station will be retained until then for the Tokaido express service.

Extension of Private Railways.—The *Tokyo Asahi*, which is opposed to the State ownership of the railways, calls the attention of the authorities to the advisability of amending the regulations so as to make it possible for private undertakings to construct or extend the lines which are unfinished. The Government on account of the war is not expected to be able to supply fresh funds for railway construction, but the paper thinks that if private undertakings be permitted to take up the work, it may be quite possible to be carried out and the country's railroads may thus be made to realize development which cannot be expected of the Government under the present circumstances.

Kalgan-Dolonor Project.—General Ho Chung-lien, Tartar-General of Chahar, has recently submitted a request to the Government, stating that in view of the commercial and strategical importance of both Kalgan and Dolonor, these two cities should be connected with a railway by prolonging the Kalgan-Hsuiyuan branch line to the latter city. On receipt of this request the Government deems this measure as absolutely necessary for commercial and military facilities and has referred his request to the Ministry of Communications to be carried into effect. It is said that the projected branch line will traverse a distance of 360 li and will not cost the Government very much to build.

Chefoo and Lungkow Projects.—Peking, Nov. 24.—A keen competition is being held between the Chinese capitalists for the right for the construction of two railways, one from Chefoo to Weih sien, and the other from Lungkow to Weih sien, and both parties have sent their representatives to Peking to canvass among the government authorities at Peking. It is reported that the authorities of the Department of Communications are of opinion that any of the railways, if to be constructed, should be constructed with Chinese capital and not with borrowed money.

Mr. Lu Chen-chang, adviser to the Foreign Office, has received instructions from President Yuan Shih-kai to proceed to Shantung for an inspection, and he will start on the mission in a few days. His mission is to inspect the city of Tsingtau in order to gather materials for diplomatic negotiations in the future. Mr. Tzo, Vice-Minister for Foreign Affairs, is reported to accompany Mr. Lu to Tsingtau. (Chuwō)

The Chefoo-Weih sien Railway.—It is said that the merchants and gentry at Chefoo have recently held a meeting discussing their scheme for the construction of the projected Chefoo-Weih sien railway. The merchants and gentry are unanimously of the opinion that as this railway concerns the vital interest of Shantung in the future, it is imperative for them to petition the Government, asking the latter to grant them the right to build the said railway with entirely Chinese capital.

Railway Fortifications.—The *Army and Naval Journal* says that the Government has proposed to fortify Shanhaikuan and Chengchow, which are situated on the line of the Peking-Mukden Railway. As the railway is an important line from a military point of view, and it is along Pehai Bay, somebody proposed to build fortifications at important points some time ago. The journal continues that as the construction of such forts are of vital importance, the Government has wired to the Chiang Chuns of Fengtien and Chihli instructing them to send officials to survey these places and make a report as to the detailed expenses involved in the construction work.

Chihli Railway Project.—The local gentry of Chihli have now promoted a railway company for the construction of a line from Wen An Hsien to Liang Hsung Hsien, a distance of more than 200 li, connecting the northern section of the Tientsin-Pukow Railway and the Peking-Mukden line. The scheme of such an enterprise is to facilitate transportation purposes. All districts along the proposed line are well known for their products, rice, provisions, and coal.

The Nanking-Changsha Railway.—As has already been projected by the Government, the Nanking-Hunan Railway will be divided into sections, and the whole line will start from Hangchow, the capital city of Chekiang, and terminate at Changsha, the capital city of Hunan. The first section will comprise both the Hangchow-Shanghai and Shanghai-Nanking Railways, and the second from Nanking to Nanchang, is awaiting construction. The third section will consist of the Nanchang-Kiukiang and the Hunan Railways. All these railways have been nationalised. A few days ago the Ministry of Communications sent a party of officials to the South to make an investigation into the projected lines of the said railway.

Nanking-Changsha Railway.—The Managing Director's office for the Ning-Hsiang Railway, a line from Nanking to Changsha, has been opened at Nanking under the directorship of Mr. Sun Tau-yueh (Mr. Clarence Sun). Its establishment is composed of three departments, general, accounts and construction and three chiefs also are to be appointed by the Board of Communications, Messrs. Yui Yeh-chang, Hu Kwei-chao and Lin Chik-chin. It is understood that the British syndicate has only advanced an amount of loan sufficient to meet the expenses for the maintenance of the railway office and the making of surveys for one year.

South Manchuria Feeders.—An agreement was recently signed between the S. M. R. Co. and the Penchiu Colliery & Mining Co. to

construct and manage conjointly a railway from Penchiu to Chienchang. In what proportions the required capital is to be produced by the two Companies remains unsettled. The concession for the same has, we understand, been secured from the Peking Government. The proposed line may be regarded as a mining railway, and, pending the satisfactory exploitation of markets for the outputs of Niuhsintai and other collieries along the proposed route, no work will be taken in hand. At present a light rail line runs from Penchiu to Niuhsintai, a distance of about 9 miles. This may be extended, as the requirements may justify, to Chienchang, about 60 miles from Penchiu, or the whole line may be superceded by a standard gauge line, when the economical assets of the country have sufficiently grown.

The Canton-Hankow Railway.—The Wuchang correspondent of the *N.-C. Daily News* writes:

"During the year splendid progress has been made with the railway. It passes the city near the east gate and runs straight across a shallow lake to the Yangtze. A small hill is being demolished to provide the material for the embankment which crosses the lake, and hundreds of men have been at work blasting digging and carrying.

"Years ago a small railway was built by Chang Chih-tung from the Yangtze, for carrying copper to the mint and truckloads of copper cents back to the river to be distributed all over China. Those were happy days for the Government, when three copper cash could be melted down and minted into the new coin which represented ten of the old cash. The mint was so extensive that in a few years all the copper in the world could be converted into copper cents. But there is a limit to the most successful attempts to debase the coinage, and in spite of the Viceroy's eloquent appeals, a limit had to be placed by the Central Government upon the output of the mints. And this none too soon, for the dollar, which at one time exchanged for about 800 cash, was exchanged for 1,300, and wages and prices reckoned in cash went up accordingly. So there was no need of a railway to carry the copper.

"The old railway ran beside the lake outside the city, entered the east gate and to the great inconvenience of everybody, ran all along the carriage road, from the gate to the mints in the centre of the city. Since the Revolution most of the lines were taken up inside the city, and the lake was allowed to wash away the embankment and for half a mile or so, the rails and sleepers were suspended in mid air, or collapsed entirely. But within the last week or two the embankment has been repaired and new sleepers and rails laid, but for what purpose we know not."

Inner Mongolian Railways.—The Government has proposed to construct new railway lines outside the Great Wall in order to facilitate communications. The termini of the proposed lines are the several places which are to be opened as trade ports, such as Chifeng, Taonanfu, Dolonor, etc. The first line is from Peking to Jehol, the mileage of which is 140 miles, with a line from Jehol to Chifeng of 130 miles and another line of 180 miles running from Chingchow to Chifeng. The other lines are from Kalgan to Dolonor of 150 miles and from Dolonor to Chifeng of 200 miles. The total mileage is 800. These lines will be connected with the Peking-Mukden and the Peking-Kalgan Railways. The scheme is now under the consideration of the Ministry of Communications.

First Standard Gauge Railway Engine.—Designed and built at South Manchuria Railway Workshops. On October 30th, a trial trip was successfully made of a new Railway Engine on the main line of the South Manchuria Railway, on the following schedule:—

IV.—Dairen 1.05 p.m.

Ar.—Nankuanling	1.45 p.m.
Lv.—"	2.20 p.m.
Ar.—Dairen	3.00 p.m.

The event, says the *Manchuria Daily News*, marked a new epoch in the annals of Japanese Railway Engineering. Already on the Imperial Japanese Government Railways home-built locomotives are drawing Imperial Government trains, but all the Japanese home lines are on the narrow gauge. This one, whose trial trip Dairen had the honour of witnessing, is the first standard gauge locomotive ever designed and built by Japanese engineers. The South Manchuria Railway Company had the distinction of producing this interesting piece of work at its central workshops at Shakako, near Dairen, the terminus and headquarters of the Railway, and one of the most flourishing ports in the Far East.

The lay-out of the Shakako Workshops, though on a comparatively small scale, is one of the best and most up-to-date in the world, and the equipment is second to none. Opened only in 1911, with the most modern facilities and machinery that science had invented, nothing has yet become obsolete or old-fashioned, while new inventions and facilities are added whenever they appear. There are nearly 3,000 well-trained employees, the majority of whom live in a model town adjoining.

Having produced some of the most beautiful saloon carriages and passenger cars in the world, as well as goods cars of every description, tram cars, etc., and having, in addition, put out at short notice much machinery, such as huge winding machines for use in the Company's coal mines, etc., it is not to be wondered at that, under such an able superintendent as Mr. H. Mori, formerly Superintendent of the Workshops of the Imperial Japanese Government Railways, ambition should soar to the construction of a locomotive engine. And in this endeavour they have been successful beyond their wildest dreams.

Hitherto, the South Manchuria Railway trains have been pulled by the finest locomotives money could buy in America and Great Britain. But this home product has proved by actual running to be the finest engine, with the highest efficiency, among all the locomotives in the possession of the Company. It is of entirely new design, and has been aimed at embodying the merits of the best types in Europe and America to suit the condition of the Company's lines.

Thanks to this initial success, the Workshops are now building five more locomotives of exactly the same design, and are also constructing six double-ender tank engines for the Chosen (Korean) Government Railways. Moreover, it is intended to gradually increase the capacity for building new locomotives and cars.

The following is a description of the engine whose trial trip is undermention:—

The frames are of plates with underhung driving springs, similar to the Continental type, and have 0.176" deflection per short ton, which lies between the English and American practices, and effects the best riding of the engine.

The boiler is of the Belpaire type, with cylindrical smoke-box, supported by a saddle made of steel plates, the exhaust pipes in the saddle being of steel.

The brick arch is of special reinforced design, with no arch tube, which has been found, by actual trials already made on several locomotives, to last over seven months without attention.

The superheater is of the Schmidt type, with superheater heating surface of 532 sq. ft.; and the lubrications of cylinders, steam chests, and air pump are by Michalk's patent mechanical lubricator.

The valve motion is of the Walschaert type, and the elliptic valve diagram was automatically drawn by actual valve motion, thus ensuring that the steam distributions in the cylinders are perfect.

Stamp Tax on Railway:—In compliance with the order of the Ministry of Communications, the authorities of the Peking-Hankow Railway have drawn up the regulations governing the use of stamp tax. A stamp of one cent shall be attached on every bill for articles costing \$10. The receipt for more than \$10 should bear a 2-cent stamp. On every copy of accounts book of the railway in every year there shall be put a stamp of 2 cents. A stamp of 1 cent should be put on a contract which the railway may enter into with its employee whose salary is less than \$10. On the contracts for construction work the charges for stamp tax is fixed as follows:—from \$10-100, 2 Cts., \$200-500, 4 Cts., \$500-1,000, 10 Cts., \$1,000-5,000, 20 Cts., \$5,000-10,000, 50 Cts., \$10,000-50,000, \$1 and for the contracts of the value of more than \$50,000, the charge of stamp tax is \$1.50.

The Russo-Mongolian Railway Treaty:—Owing to lack of space, the following translation of the text of the above agreement was crowded out of our last issue. It is understood that while the agreement has probably been concluded and signed, it has not been communicated to the Chinese Government. If the agreement is a fact, it will of course be submitted in due course to the Tripartite Conference:

Art. 1. The Russian Government hereby recognises the permanent right of the Mongolian Government to build railways within the boundaries of its own territory.

Art. 2. The Russian and Mongolian Governments shall consult each other to decide the railway lines and procedure of their building, which should be carried in such a way as to benefit both parties concerned.

Art. 3. In case of railway building, whether financed by the Russian or Mongolian Government or by private persons, the Russian Government shall render adequate help to the Mongolian Government.

Art. 4. When such railways as will connect with the railways on Russian frontiers be built, the Russian and Mongolian Governments shall consult each other on the terms concerning the privileges, localities and railway revenue regarding the same.

Art. 5. Whereas the Mongolian Government has the right to build railways within the boundaries of its own territory, it can raise funds internally to build paying railways, the Russian Government shall not interfere with it. But should the Mongolian Government concede such rights to other countries, the Mongolian Government, for the sake of friendly relations with Russia, should discuss this matter with the Russian Government, before the former makes the actual concession in order to ascertain whether the projected line or lines of railway would jeopardise the Russian interest from an economical or military standpoint.

Art. 6. This treaty shall be duplicated in both the Mongolian and Russian languages. One copy shall be deposited in the office of the Russian Consul-General in Mongolia and the other in the office of the Ministry of Foreign Affairs of the Mongolian Government.

The Kobe Harbor Works:—Seven years ago September 16, the Kobe Harbor extension works were undertaken in order to cope with the growing trade of this port. The general plan was to reclaim land for an area of 662 acres off Onohama, providing four piers and numerous other means of facilitating harbor traffic and communication, including 12 miles of railway track, at an aggregate cost of \$6,537,704, the main purpose being materially to add to the accommodation of the Kobe customhouse, and also to construct a breakwater about 3,800 feet long, at a cost of \$1,333,760.

Last year the work was pushed forward chiefly in regard to the construction of quays and roads along and on the reclaimed land, the depositing of rubble for the base of the

breakwater, and dredging. The reclamation for No. 1 and No. 4 piers, numbering from the east, the latter being that jutting out from Kyobashi, has now been completed, and the laying out of roads and drainage has been finished on the former and nearly finished on the latter. The reclamation works on No. 2 pier have for the most part been completed, while those on the remaining pier, No. 3, have only recently been commenced. Along the east side of Pier No. 4 temporary provisions for mooring have been made, and since October 4 last, when the *Yawata Maru*, of the Nippon Yusen Kaisha, moored there for the first time, about 120 steamers have put up in the new moorings up to date. As to the long breakwater, the construction has been completed for a length of about 900 feet. Roughly speaking, a little more than half of the work has been completed up to the present; it was originally estimated that all would be completed by September, 1918.

Pier No. 1 is to be devoted to passenger accommodation, and a post office, hotel, barrooms, etc., will be erected thereon.

Zamboanga, P. I., Harbor Works:—The long delayed harbor improvements at Zamboanga were commenced in November.

The project is simple and feasible and the cost well within the means of the city. The old mole is to be widened to the width of the street from the shore line to the present pumping station. The concrete retaining walls will be constructed with an overhang to turn back the water in the same manner as the seawall behind the custom house. The roadway will be 11 meters wide and will be flanked on either side by a two-meter sidewalk separated from the roadway by an iron guard-rail. Ornamental benches will line the outer edge of the sidewalks, alternating with concrete urns somewhat similar to those around the governor's house. This ornamental work is very inexpensive and will add greatly to the beauty of the approach to the city while the benches will add much to the comfort of the throngs who seek the cool sea breezes on the dock at night.

The old pumping station is to be moved and on its site there will be constructed a pavilion and kiosk for the accommodation of the public during rainy weather or while awaiting steamers.

The wooden extension of the dock will be widened on the west side to allow more space for the handling of freight and the pier head is to be extended in order to permit the docking of two inter-island steamers at the same time.

MINES AND MINING

Self-Acting Endless Haulage Gear:—The self-acting endless haulage gear, which has been designed and built at the S. M. Railway Workshops, Shahokou, to the order of the Penchiu Colliery & Mining Co. for installation at the Company's iron mine at Miaoerhou near Nanfen Station on the Mukden-Antung Line, is capable of developing 500 horsepower and transporting 2,000 tons of iron ore per day down the grade of 1 in. 6 from the hill 1,000 ft. high. The interesting feature of this machinery is that the weight of the hanging tubs is contrived to operate an air compressor to generate compressed air of 1,000 cub. ft. per hour at the pressure of 100 lbs. per sq. inch. This does not only serve as the braking power and regulate the rope-speed, but also it is available as motive power for the rock drills in the mine. Moreover, the exhaust air of the drills will work out the ventilation of the mine. It is a wonder, demonstrating to what account science may utilize the energy of gravity, and therefore it is a specimen of the most economical and up-to-date machinery of its kind in existence.

The principal dimensions of the machinery are as follow:—

Horse power... ..500
 Total weight of machinery 95 tons
 Diameter of drum ...10'0"
 Diameter of wire rope ...1½"
 Speed of winding rope ...200'-0" per minute

Gold Mines in Heilungkiang:—The Government has recently sent repeated instructions to the Chief Official of Heilungkiang Province ordering him to pay special attention to the gold mines of that province, therefore such mining industry has developed very quickly. A bureau for the various gold mines has been established and Mr. Yu Sheng-wu has been appointed its chief to look after all the mines. Five more placers have been discovered to contain rich gold sand, and among them the place called Huohsiuying is the richest. This district covers an area of 40 li in length and 10 li broad, and it will give work to 3,000 workmen for 20 years. The labourers' wages are fixed at 0.13 gold per day.

Iron Monopoly in China:—The "China Times" reports:—Regarding the state ownership of iron mines in China it has been duly decided at a meeting of the State Department but the rights already granted will not be touched upon.

Japan's Mining Scheme for China and the South Seas:—The Parliamentary Correspondent of the *Japan Times*, writing on October 31st, say: It is intended to exploit different kinds of mines in localities outside of the Imperial dominions so as to import ores for refinement in this country. The appropriation for this purpose will be used in dispatching experts to such places as may be considered inviting for the new undertaking. The amount of the appropriation will not exceed forty thousand yen, and the points to which the experts may be sent for making necessary investigations will be China and South Sea Islands. Natural resources which have remained undeveloped in those countries are believed to be quite extensive, and the officials in the Ministry of Agriculture and Commerce have long been looking for an opportunity to make a new opening for Japan's mining industry by facilitating importation of necessary ores from abroad.

When a new mine is discovered, or an improvement is found to be possible for one already in state of working, the expert sent to the place will report to that effect to the Minister of Agriculture and Commerce. The same report will be open to those who may be prepared to advance the necessary amount of capital for working the mine on a business basis. This new line of work will no doubt be welcomed by those who are interested in the development of Japan's mining industry and it is also believed to be highly beneficial to the country to which Japanese capital would come to be employed for developing its hidden resources.

It is believed that the islands of the South Pacific located north of the equator will receive first attention together with exploitations along the big waterways in China. Already a good deal of expectation has come to be felt in certain quarters in the work contemplated by the Mining Bureau in the Ministry of Agriculture and Commerce. A very extensive field is believed to be in existence for an exploitation of this kind.

Anglo-Chinese Mining Co:—A rich silver mine located at Lung-Chiao-Shan, Tayeh, the concession for which was held by Chinese, is to be developed with the assistance of a British mining syndicate, between whom and the concessionaires an agreement is reported to have been concluded. It is stated that the capital of the company, which is to be furnished by the British syndicate, will amount to twelve million dollars. No portion of it may be used for any purpose other than the operation of

the mine, the construction of a smelting mill, the building of railways and the transportation of ore. The company is appropriately named the Anglo-Chinese Mining Company, and one of the articles in the agreement provides that the chief and assistant engineers shall be foreigners whose salaries and terms of employment shall be fixed by the Company subject to the approval of the Chinese Government.

Ching Hua Mining Co:—For the development of a copper mine in Nanchang district, Hupeh, the Ching Hua Mining Company has been established at Wuchang. It is stated that the ore contains as much as ninety per cent. of copper and as it is considered that the smelting process can be improved by the installation of foreign machinery, it is probable that modern foreign equipment will be secured. The Company has a capital of \$100,000.

The Ping Hsiang Mining:—Tax office collected in October Tls.13,900 for remittance to the Provincial Finance Department.

Copper for Hupeh Mint:—A big quantity of copper recently ordered by the Wuchang Mint, weighing 10,000,000 pounds, from Yunnan Province, and a portion from Japan through Mitsu Bishi and Company, has arrived at Wuchang. Delivery has been taken and the material transported to the Mint.

Pekin Syndicate Agreement:—The dispute between the Honan people and the Peking Syndicate as to mining rights and boundaries has now been concluded. An agreement was signed in Peking on November 9, by Mr. Hu Sak-ching representing the Honan people and witnessed by a deputy from the Honan Civil Governor and an attorney from the Peking Syndicate. The Agreement comprises eighty-two articles and conditions.

The Hankow Tao Chen Metallurgical Co., Ltd., is capitalised by the people and under the supervision of the Government. The Company is now testing a silver mine and a big quantity of ores is required to be shipped to Shanghai for further assaying. The Hupeh Civil Governor, therefore, has been requested to grant the Special Houchi and replied that the privilege can only be given by the District Mining Superintendent.

Yunnan Mines:—The export of antimony, which entirely ceased during 1912, has been resumed to the extent of 8,550 cwts. during the year under review. The purely Chinese smelting and refining plant at Chih Tsun is doing well with four small furnaces (total output 2 tons of antimony per day), and is arranging for the erection of two more.

Hupeh Mining:—The Yang Hsin and Tayeh districts in Hupeh are known for their mining regions. Up to the present there are sixty-one mines in Yang Hsin District and seventy-six in Tayeh District registered in the record of the Yang Ta Mining Bureau. Out of 137, more than forty mines have worked successfully with sufficient capital. Unexpectedly as a result of the present war, products, principally coal, have been stored in unusual quantities, as there is no market even at a cheaper price. The mining companies have eventually suffered an indirect loss and it is said that the Tung Chi Pao, Yui Lee and Huk Kee Mining Companies have several ten thousand tons of coal in stock unsold, involving loss of interest.

Belated Mining Advice:—Yang Shih-chi, Assistant Secretary of State, has presented a petition to the President suggesting the development of mines in the provinces on a large scale, thereby relieving the people of their poverty. He recommends the construction of refineries and the training of mining experts.

Mines Along the Railway Zone:—As there are many mines within easy reach of the various government railways, if properly worked there will not only be an accessible supply of coal to the various railways but, in view of the facility of transportation, its cost of production will be extremely low. For this reason the Ministry of Communications has instructed the Peking-Hankow Railway Authorities to institute an investigation into the regions through which the Kin-han Railway runs and to report to the Government how many coal mines they have discovered within easy reach of the railway and what kind of coal these mines produce; so that the Government may take further steps to work such mines. The Railway Administration has forwarded a report on the subject. The report says that in Fangshanhsien, Chihli, alone, there are 167 places where coal is found. On account of the lack of capital to develop the mines, the country people mostly resort to the process of excavation in an unorganized way. The highest price for ten thousand catties of such coal is seven dollars. There are twenty-seven collieries which are now being worked. The price for one ton of this coal is between \$1 and \$9. There are 23 companies which have stopped working their mines owing to the lack of funds, but it is expected that they will soon reopen business.

Wolfram Mining in Siam:—Mining for wolfram in Siam is of recent development. However, according to a report published in the Directory for Bangkok and Siam, this mineral had been known to the Chinese tin miners for a long time as "dead ore," but its commercial value was unknown until some of the ore was taken to Singapore for analysis, and this black mineral was found to be wolfram and to have a workable value.

The richest deposits of wolfram were found in Nakon Sri Tamarat on the east coast of the Siamese portion of the Malay Peninsula. Here the wolfram ore had been left in great heaps as valueless material after having been separated from the tin ore by the Chinese miners. The amount of wolfram recovered during the fiscal year 1912-13 was 309 tons, against 110 tons for the previous year. It is said, however, that the output of this ore is likely to diminish soon, as the surface workings are now nearly exhausted, and that for the working of the deeper deposits on proper lines special knowledge and considerable capital will be needed.

Not long ago a European company started working for wolfram in Koh Samui, an island near Nakon Sri Tamarat, but the experiment was not successful and the works have now been abandoned. Wolfram in moderate quantities has also been found at Puket on the west coast of the Siamese Malay Peninsula, and this mineral is said to be fairly widely distributed throughout the peninsula.

American Coal Mining in Philippines:—A group of American capitalists has been interested in the development of the coal deposits of Mindanao, on the east coast of the island. The deposits have been prospected by coal experts and pronounced extensive and of good quality. The Bisbig River flows through the region and into a bay that can be converted into a good harbor with little expenditure. There are said to be three veins of coal superior in quality to that which has been mined in other parts of the islands. The region of the Bisbig River is covered with a good growth of timber, and it is said that the new company will probably apply for timber concessions in connection with its coal-mining project. The local promoters say that \$1,800,000 capital from Boise City and Seattle is to back the new enterprise.

Tayeh Iron Mines:—The Ministry of Agriculture and Commerce is proposing to make the Tayeh Iron Mine into a State Company. The Directors of the Han-yen-ping Iron and Steelworks will be asked to attend a discussion of the matter in the capital. The

Ministry has asked the President to sanction the opening of the coal and iron mines in China.

Shantung Mines:—A party of officials of Fushun Collieries, including Mr. S. Sakaguchi, Assistant Manager, Mr. N. Tajima, etc., sent to Shantung at the instance of the War Office, Tokyo, visited in turns the collieries at Poshan, Hungshan and Chinlingchen. They took up preparations for operating these mines. As in the case of the locomotives, etc., essential parts of the machinery under installation have been removed by the Germans and cannot be found. It will take some little time to replace the missing parts so as to make the machinery serviceable. Necessary appliances are to be furnished for the immediate purpose by Fushun Collieries. A gang of workmen was also sent to Shantung a few days ago.

RIVERS AND HABORS IRRIGATION

Mr. Chang Chien and the Hwai River, Conservancy:—The Minister of Industry, Commerce and Agriculture, Mr. Chang Chien, is still making persistent efforts to resign, and it would seem that the President is as strenuously endeavouring to prevent him doing so.

When the Minister recently went south it was expected that he would contrive to cast off the toils of Ministerial work, which keep him confined to Peking, and devote himself to the Irrigation Bureau, through which he hopes to control any work that may be done in connection with the Huai River conservation scheme.

President Yuan Shih-kai states this morning in a eulogistic mandate that Chang Chien is too valuable a man to be allowed out of the Government service, and remarking that he looks upon him as a model for all officials. The President gently refuses to accept his resignation, though he softens the refusal by laying it down that the Minister of Industry, Commerce and Agriculture should be allowed a free leg to travel about the country. This ought to suit Mr. Chang, who prides himself upon his multifarious interests.

Speaking of the Huai River brings to mind a little story that went the rounds recently to the effect that Mr. Chang Chien had a scheme of conservation of his own which he deemed much better than that prepared by the experts, and which he wished to have adopted.

The story goes that, when this became known in America a notification was promptly made that unless the plans of the experts were adopted no money would be forthcoming from the United States for the work. Mr. Chang Chien knows that his Irrigation Bureau is not in a position to do anything without money, and he very expeditiously packed his scheme away in his portfolio and now has eyes for nothing but those of Colonel Siebert.

Liao River Improvement:—With reference to the scheme for the improvement of the Liao River, H.M. Minister at Peking reports that, after prolonged and tedious negotiations extending over a period of nearly four years, an agreement has now been drawn up between the superintendent of Customs at Newchwang, as representing the Manchurian Government, and the Consular body at Newchwang, as representing their respective Governments, regarding the constitution and powers of the Liao River and Bar Conservancy Board. The works contemplated under this agreement compose the dredging of the bar at the mouth of the Liao River, the improvement of the river channel from there to the Newchwang Harbour and the closing of the Junk Channel, and also the protection and strengthening of the narrow strip of land between Duck Island and the lower limit of the harbour, in order to prevent a possible breach by the waters of the Liao River.

This work can not be begun until next spring.

The Yellow River:—Mr. Hsu Shih-kwang, who was recently appointed to direct the repairs of the banks of the Yellow River which were burst, has delegated a number of officials to make an inspection of the damage done to the banks. From the reports of his officials he estimates that something like \$6,000,000 will be needed. As the Ministry of Finance is not in a position to make such a big appropriation, the President has instructed the authorities of Chihli, Honan and Shantung to give \$3,000,000 or \$1,000,000 for each province. As to the other \$3,000,000, the Ministry of Finance will try its best to raise it itself.

China's Conservancy Works:—The announcement that the work of dredging the North Canal had commenced at the beginning of this month and that an office to arrange for the dredging of the Yungting River was to be established by the middle of this month is an interesting one at the present time in view of China's attitude to the subject of national conservancy. As is known, a Dutch engineer, Mr. Van der Veen, has been engaged as expert adviser to the National Conservancy Bureau, and his recommendation, with which Mr. Chang Chien, the Minister of Agriculture and Commerce, is in agreement, is that conservancy should be considered in a comprehensive manner and that local schemes should not be attempted but should be subordinated to the plans of a large national system. For instance, it has been suggested that the Grand Canal, which has been allowed to silt since the carrying of tribute rice from Tientsin to Peking on its waters was discontinued, should be rendered navigable by dredging, but a practical view of the subject tends to show that if this were done the operation would probably have to be renewed the very next year as the flooding of the Yi River would bring about conditions similar to those which exist at present. This argument still applies. However, there are exceptions to this general principle, and the joint undertaking under notice comes under that category. It is not planned in order to improve the waterway as a means of communication or to facilitate transportation but it is planned to improve the lot of the people who unhappily live in a district which is liable to be flooded by the overflowing of the canal and the river owing to the heavy spring rains. Much suffering was caused in that part of Chihli during the early part of the present year when thousands of acres of land were submerged, and the Governor of Chingchao is entitled to every credit for his forethought and courage in commencing such a necessary enterprise, especially so when money is scarce. The waters will be controlled in time and made subservient to the needs of the district rather than allowed to become a tyrant which works incalculable damage and destruction, so that in the long run it will be found that the money expended was a capital investment yielding a greater return than can be calculated in hard cash. It is not stated in the report from which source the necessary money is being derived, but it is to be hoped that there will be no financial obstacles to completing the work and thereby reducing the number of "China's Sorrows."

Hongkong's Water Supply:—The water return issued by the Water Authority detailing the storage of water in the reservoirs on the 1st November shows that at the end of October the storage in the City and Hill district water works level was 716.71 million gallons, compared with 684.49 million gallons at the end of October last year. The consumption of water was 166.65 million gallons by an estimated population of 258,919, showing an average consumption per head per day of 20.7 gallons, compared with a consumption of 176.37 million gallons by an estimated population of 255,319 and an average consumption of 22.3 per head per day in the similar period of 1913. There

was a constant supply in all districts during October in both 1914 and 1913.

The storage in million gallons in Kowloon Gravitation Reservoir was 352.50, about 19 million gallons less than at the end of October, 1913. The total consumption in Kowloon by an estimated population of 95,300 was 36.10 million gallons, showing an average consumption per head per day of 12.2, compared with a consumption of 34.92 million gallons by an estimated population of 93,500 in October, 1913.

Kweichow River Improvement:—The new governor of Kweichow Province, has decided to take in hand the improvement of the waterways of the district. The P'an River, which reaches as far as Wuchow in Kwangsi, is, like several other waterways in the locality, too shallow for purposes of navigation. He has investigated the question and reports that a sum of at least \$300,000 will be required to dredge the river named. Several million dollars will be needed if other rivers are also to be improved, but at the moment attention will be concentrated on the P'an River, and if the results are satisfactory the others will be dealt with in due course.

Matheson Lock Joint Pipe:—Messrs. Germann & Co. Ltd., the well known engineers and contractors of Manila, were awarded the contract for furnishing 10,400 meters of 5½ inch diameter special lap welded steel tubes fitted with Matheson patent lock joints to the Vigan waterworks for the sum of P.28,150.

Irrigation Pumps, Yunnan:—The Yunnan correspondent of the *North-China Daily News* states that a British merchant from Hongkong secured a contract for an irrigating pump with the prospect of others to follow.

Cost of Relief from Floods:—It is said that the floods and other natural calamities for this year will cost the Ministry of Finance something like \$1,237,200. The Ministry has thus far spent \$278,000 for the relief work, and, the amount of revenue which it cannot collect on account of floods and the like is approximately \$959,200.

Yangtze Conservancy:—The "Sin-wanpao" reports:—The Conservancy Board has decided to dredge the Yangtze from Chinkiang to the sea, and engineers and secretaries have been detailed to study the actual conditions.

Liao River:—Mr. Chen-chihchien, Inspector of the Customs, Newchwang, has been relieved of his additional post of the superintendent of the Dredging of the Liao. This post has been additionally invested in Mr. Yung-hou, District Superintendent of the Liao-Shen District.

Fomosan Harbor Works:—One of the most important public works now being carried on by the Taiwan Government is the improvement of the harbor at its principal port, Keelung, at the extreme northern end of the island, through which passes more than half of the shipping. The new work includes large warehouses of steel and of reinforced concrete; a sea wall, for protection against the destructive typhoons, is to be lengthened some 14,000 feet; twenty-one mooring buoys are to be placed; and eight cranes of 1½ and 10 tons are to be added to the equipment. Improvements of the same general nature are also being carried on at Takao, Tamsing and Tamsui.

Irrigation Works in Siam:—The Siamese budget estimates for the fiscal year 1914—15 provide \$362,230 for establishing a regular irrigation department and for purchasing part of the necessary plant.

A grant of \$37,080 was made for 1913—14 for irrigation studies, which have been carried on

during the year by expert engineers lent by the British-India Government, assisted by a locally engaged staff.

The final project has not yet been completed, but it has been definitely decided to carry out an irrigation scheme without delay, the aim being to provide irrigation facilities for the chief rice-growing districts of the inner circles (Monthons) of the Kingdom. The funds for this project will be met through loan and reserve funds.

ELECTRIC LIGHT & POWER

Peking Tramways:—Extracted from the Report of the Municipal Administration of Peking. (As these reports are for the perusal of the general public, they are written in conversational Mandarin.)

In order to introduce municipal reforms into the Capital, the first important measure is to build a tramway so as to facilitate traffic. The plan for building a tramway was once approved but nothing has been done. This is due to the fact that the Tramway Company violated the contract and the Government then cancelled its charter. Subsequently after the organisation of the Municipal Council, the latter thought of the building of the tramway. By that time people held various opinions about it. Those who seconded the plan expected to see the complete construction of the tramway within a few months. The conservative class, fearing the destruction of a certain number of official and private buildings in order to make room for the projected line, invented various rumours to frustrate it.

The Council's plan for building a tramway can never be frustrated in this way as it has been busily engaged in this project. The delay is due first to its importance and the Council deems it advisable to give due consideration before it is carried into effect. Secondly the Council desires to inform the public of the beneficial effects of the tramway so the fear once entertained will subside. On the 27th and 28th of August and the 1st of September the Council made a clear explanation of its plan for building the tramway and the advantages which will accrue therefrom in its Municipal Report. Since then the conservative elements have withdrawn their opposition. At the end of October, the local papers in Peking published news to the effect that a certain Capitalist expressed surprise at the indifference of the Government in making plans to facilitate traffic in the Capital. The papers further said that it was strange to see the recent inactivity of the Municipal Council in carrying out its project in building a tramway in the Capital, etc.

Such criticisms serve to show the conservative class that the building of the tramway in the Capital is not planned by only a minority of the people but that it is generally supported. But what the Council wants to add is that those who made such criticisms have not read the notices referred to above. In short, the building of the tramway in the Capital will be carried out sooner or later. Those who expect it may wait and see its early completion, while those who oppose this campaign need not work against it.

Peking Electric Light Co.:—It is reported that the Peking Electric Light Company has obtained an increase of capital to the extent of \$750,000. Of this amount nearly a half is to be expended in extension work of various descriptions.

Manchuria Electricity Co.:—The Manchuria Electricity Company received up to November 1st, subscriptions to about 1,600 lamps at Kaiyuan. The work of installation there progressed so far as to enable the management to make a trial illumination every night. The Government inspection of the installation was conducted on October 23rd

and the result was satisfactory. The Government Regulations require the complete installation of a spare generator, etc., before an official permission is given for opening business. The management has however, asked for permission to begin business unofficially pending the fulfilment of the above requirement, and it is probable that the request will be complied with.

The difficulties between the management and the intending subscribers at Kaiyuan were smoothed over by a compromise plan that the monthly contract rate per lamp of 16 candle-power be reduced by 5 sen to Y1.35 instead of to Y1.30 as asked for, subject to reduction to Y1.30 when the number of lamps subscribed to reaches 3,000, and that, in the case of all subscriptions up to November 30th, no fees be charged for wiring installation as a mark of special courtesy, and that no charges be made for removing the installation. The installation of meters has been put within access of any subscriber using more than 20 lamps. This compromise was proposed by the management to intending consumers. President Gonta, Managing Director Suzuki, Directors Okabe (M. P.), Seki, etc., represent the Company. This compromise was accepted without reserve.

Hydroelectric Power Development, P. I.:—The Manila Power Co., a Connecticut corporation, has just obtained permission to do business in the Philippines. The company is incorporated for \$1,000,000 and is understood to be about to take over the Caliraya water right granted by the last legislature to Charles M. Swift. The corporation is authorized to organize and operate hydroelectric power plants, to dispose of electric current, to acquire water rights, and to engage in other similar activities within the Philippine Islands. The incorporation papers were filed in Hartford, Conn., and the incorporators were Arthur L. Shipman, William Waldo Hyde, and A. W. Hyde.

Shanghai Municipal Plant:—The Municipal Electrical Engineer in his last report states that good progress has been made with the extension work at the Riverside station. The four boilers are nearing completion. The first 5,000 K. W. turbo-alternator has already been on load for a short period. With the temporary steam pipe connections it has been possible to get 4,000 K. W. output from the machine. This may be regarded as satisfactory inasmuch as it provides additional reserve of generating plant although until the boilers are ready—and their availability for service is dependent upon the erection of the delayed main pipework just arrived—the total capacity of the power house will not be appreciably increased.

TRADE NOTES

Japan's Machinery Imports.—The report on the trade of Japan for the year 1913 by Mr. E. F. Crowe, Commercial Attache to His Majesty's Embassy, Tokyo, states with regard to the imports of machinery:—

The figures for the machinery are very high and easily beat all previous records, the total amounting to £3,752,700, as compared with £2,987,600, in 1912, or an increase of 22 per cent. To a certain extent, however, these returns are misleading, because instead of representing activity during 1913 they should be taken as indications of the optimistic feeling which prevailed as to the future in 1911, inasmuch as a large portion of the machinery arriving last year was ordered more than 12 months ago. At present there is a comparative cessation of new works and of development of existing factories, so that the outlook for the next year or two is not very bright. As was anticipated in last year's report, a great deal of the cotton spinning

machinery, which had been delayed for various reasons and could not be shipped in 1912, came forward in the course of the past 12 months, with the result that this item once more easily takes its place at the head of the table. The following table shows the shares in the line of business which fell to the principal countries during the last three years:—

Country	1911. £
United Kingdom	1,260,600
United States	644,600
Germany	674,300
France	18,500
Other countries	211,000
Total	2,818,000

Country	1912. £
United Kingdom.....	1,456,300
United States	705,600
Germany	658,900
France	18,500
Other countries.....	148,300
Total	2,987,600

Country	1913. £
United Kingdom	1,737,800
United States	754,300
Germany	873,600
France	24,700
Other countries	362,300
Total	3,752,700

It will be seen that the United Kingdom remains well at the head of the list, but her share* has not advanced as much as that of Germany, the rates of increase being 19 and 33 per cent. respectively. It is cotton spinning machinery, an advance from £144,000 to £491,000, which is largely accountable for the gain made by the United Kingdom, while the growth in the sales of German machinery is more general, but is chiefly ascribable to electric machinery. In looms and tissue finishing machines both countries registered considerable gains—the United Kingdom from £61,000 to £106,000 and Germany from £23,000 to £41,000. On the other hand, in the case of machine tools, the United Kingdom, United States, and Germany, which share the trade between them, all suffered large losses. Germany retained her commanding position in the supply of water turbines, and she was successful in obtaining important orders for some large cranes and two or three big gas engines. This meant that compared with 1912 Germany showed an important advance.

Although Japan still imports machinery in such large quantities, it is interesting to note that there has been solid development on the part of Japanese machinery makers. In the case of gas plant for lighting and power it has been quite remarkable. They are making suction producers, gas engines, retort furnaces, and are building complete gas works. Practically all the appliances required by gas companies are now made in Japan, including meters, stoves, burners, lamps, glassware, mantles, &c. The above are being produced by a number of factories on a very large scale. They are somewhat inferior, lighter, and cheaper than imported goods, but they suit the market, and the cost of freight and duty make it quite impossible for foreign goods to compete.

FINANCIAL

Maintaining China's Credit:—The coupons of the Imperial Chinese Government Five Per Cent. Tientsin-Pukow Railway Supplementary Loan due on November 1st were paid on and after November 2 at the Hongkong and Shanghai Bank, London, as were also the unredeemed bonds and coupons of the Chinese Imperial Government Seven Per Cent. Silver Loan of 1894 due on Nov. 1.

Government Banks in Chosen:—The business of the Bank of Chosen (Korea), the Japanese Government bank at Seoul, for the half year ending June 30, 1914, showed a gross profit for all the branches of \$208,031, with losses of \$9,165, leaving a net profit of \$198,866. The latter figure shows an increase of \$87,770 as against the figures for the corresponding period of 1913. With the increased profits for disposal, it has been decided to submit to the shareholders at the next meeting a proposal to increase the rate of dividends from 6 to 7 per cent, this dividend to be paid also on the shares held by the Government. It will be the first time since the organization of the bank in 1909 that a dividend has been paid on the Government shares, which amount to \$1,500,000 out of a total capital of \$5,000,000.

Bank of Territorial Development:—A new Chinese bank with bright prospects, the Bank of Territorial Development of China, Ltd. 33 Nanking Road, opened for business in Shanghai on Monday, December 7.

The authorized capital of the Bank is \$20,000,000 of which half has been duly subscribed while the fully paid up amount stands to-day at \$2,000,000. The Bank has recently elected a very strong board of directors and officers in Peking.

Although a purely Chinese concern, controlled and subscribed by Chinese, the Bank has been modeled along foreign lines.

The Bank does every description of banking business, buys, sells and receives for collection bills of exchange, issues letters of credit on its branches and agencies and grants loans on approved securities of personal and real properties.

Within a few weeks time, the bank expects to perfect all arrangements with correspondents in America, Europe, Australia, Italy, France, Germany, Canada, India, etc., and every facility to foreign firms will be granted to developing trade and commerce in China.

Invitations are being sent out for a reception to be held on December 7. Some of the directors and officers from Peking are expected to arrive here for the opening day for which efforts are being made to make it worthy of the occasion.

The local Manager and Sub-Manager are; Messrs. C. T. Hsu and Yushu Chin, respectively.

New Salt Bank:—The Government has decided to establish a Salt Industrial Bank, with branches in every province. The Director General is to be Chang Chen Shang.

A Russo-Mongolian Loan:—The *Shun Tien Shih Pao* heard that the Urga Government has concluded a loan of three million Roubles with Russia. One month after the signing of the agreement, the Russian Government will deliver every month \$500,000 Roubles and all the money is to be handed over to the Urga Government in six months. It is definitely stipulated that with this money the Mongolian Government is to reform its finance, promote industry, open mines and reorganize the army. Before the use of the proceeds of the loan, the Urga Government however must consult the Russian representative whose consent is necessary prior to the expending of the money. It is said that the Russian Government charges no interest for the money.

Government Load to Aid Silk Filatures:—The Chinese Government, as a result of repeated request by the Hon. Yang Tchong, has advanced Tls. 590,000 for the maintenance of the silk filatures in Shanghai. This sum is to be paid through the Bank of China and the General Bank of Communications. The filatures which are to receive assistance must present their cases to the Silk Guild, the committee of which will convey same to the Chamber of Commerce. The Chamber

is responsible for the distribution of the funds. An arrangement has been arrived at whereby the Government will be enabled to get back its money. Upon exportation, Tls. 15 will be collected on every picul in addition to Customs duties.

Canton Gambling Monopoly:—Canton, Dec. 4. The Kwanglee Syndicate has obtained a gambling monopoly for three years. The Government revenue will be \$4,200,000 annually. The Syndicate will purchase paper from a Government mill to the value of \$10,000 monthly.

Gambling will be by Shanpiao and Paopiao lotteries.

It is provided that Shanpiao tickets be from 5 to 20 cent each and Paopiao tickets at any sum not exceeding \$10.—Reuter.

The Siam Commercial Bank:—The 3,000,000 Ticals new Capital (30,000 shares of 100 ticals each) raised by the Siam Commercial Bank in accordance with special resolution recently passed has been fully subscribed. 20,321 shares has been taken up by old shareholders, the balance 9,679 shares has been taken up by 85 new shareholders. Up to the present only the first call of 25% has been made.

Banks in China:—As a result of investigation the Ministry of Finance has discovered that there are more than two hundred banks in Kirin, ninety-six banks in Hunan and forty-three banks in Szechuan. It is the intention of the President to compile a list in which will be recorded the number of private banks in every province, and other details about various financial institution from their beginning up to the present time. The President has ordered the Ministry of Finance to secure necessary banking information from the different provinces without delay.

Paper Money in China:—The amount of paper notes in circulation in China was approximately estimated at 140,000,000 dollars. Recent official returns made to the Central Government by the various provinces under its instruction, however, give the following:—

	Amount issued	Market Value	Discounted Value
Hupei	\$ 30,000,000	Less 20%	\$ 24,000,000
Hunan	36,000,000	" 44%	14,960,000
Kwangtung	32,000,000	" 40%	19,200,000
Kwangsi	3,000,000	" 10%	2,700,000
Kiangsi	8,000,000	" 33%	5,360,000
Yunnan and Kueichow	4,000,000	" 30%	2,800,000
Ili and Hsinking	7,000,000	" 20%	5,600,000
Shensi and Kansu	7,000,000	" 10%	6,300,000
Anhui	780,000	" At par	780,000
Honan	2,200,000	" "	2,200,000
Shansi	720,000	" "	720,000
Three Eastern Provinces	34,650,157	Less 38%	21,483,097
Shantung	4,800,000	At par	4,800,000
Chekiang	2,430,000	Less 10%	2,195,100
Fukien	300,000	At par	300,000
Jehol	15,000	" "	15,000
Chihli	6,400	" "	6,400
	Total		113,419,597

Ningpo Bank Defies Order:—Sometime ago the Ministry of Finance issued orders to the

Chiefs of Finance Bureaux of the various provinces to make reports of the Government on the private banks in their respective provinces. The Government has now received nearly all such reports except that of the Ningpo Bank 四明銀行 at Shanghai, which despite the order of the Ministry and the Kiangsu financial authorities has declined to give any report concerning the organisation so other details of the said bank as required by the Ministry of Finance. The Government learns that the bank in question being established in the Shanghai Foreign Settlement defies the orders of the Ministry by shielding itself behind foreign jurisdiction. It is said that steps will be taken through diplomatic channels for punishing the officials of the said bank who are responsible for delaying the Government's orders.

Reported Japanese Loan:—For the purpose of paying old debts the *Peking Daily News* learns that the provincial government of Fengtien has obtained permission from the Central Government to raise a loan from a certain Japanese syndicate. The agreement for the said loan will be signed on the 20th inst. and its essential points are as follows:

1. The total amount of the said loan shall be 1,500,000 yen.
2. The annual interest shall be 8 per cent.
3. The periods of its redemption shall be one year.
4. The proceeds of the said loan shall be devoted to the repayment of one million yen of an old debt due to the Japanese and its interest in arrears. After paying off the above two items, the remainder shall be for the use of the Fengtien provincial government.
5. The loan shall be secured on the government shares of the Yalu Lumbering Company and those of the Pen-chi-hu Iron and Coal Company, and also the proceeds from the mining tax of the Fu-cheng Coal Mine shall be used as security of the interest of the said loan.
6. The proceeds of the loan shall be paid to the Chinese officials ten days after the formal signature of the loan agreement.

Bank of Hunan:—In order to effect a thorough reorganisation of the Hunan Bank, the Ministry of Finance has decided to carry out the following three measures:—

(1) The bank should be so reorganised as to make it a thoroughly up-to-date one.

(2) Certain restrictions should be imposed upon the number of currency notes it issues in order to prevent the occurrence of any financial crises:—

(3) More specie should be reserved in the Bank so as to relieve the stringency of the financial market.

SHIPPING, SHIPBUILDING, DOCKYARDS, ETC.

Japanese Shipping Subsidies:—The Japanese Communications Department, has sent to the Financial Department an estimate of shipping subsidies for the year, in the form proposed by the last Cabinet. As a result of the debate on the Estimates at a Cabinet Council, the estimate for the Panama Canal service has been struck off, as it was decided not to open the service this year. The Department of Communications warmly urged the opening of the service this year, but the financial position being such that even an extension of the telephone service, which brings in additional revenue, is not to be allowed, the Cabinet considered the present was not an opportune time for opening the Panama service.

Subsidies for Tsingtau and South Seas:—The Osaka Shosen Kaisha has recently opened negotiations with the Department of Communications and the War Office about

opening a new line between Kobe and Tsingtau with two steamers of 400 tons class which will be run twice a week. A reply from the Department of Communications says that Tsingtau is at present under the administration of the army and besides there is no budget for the extraordinary subsidies. But from the next fiscal year the government will give subsidies for both South Sea and Tsingtau lines so that the steamship company will commence the Tsingtau line when Kiaochow Bay is opened by the military authorities.

New N. Y. K. Steamer:—The following are the dimensions of the new N. Y. K. cargo steamer *Toyooka Maru* which was launched at Nagasaki on October 29:—

Length 45ft., breadth 58ft., depth 34ft., gross tonnage 7,630 tons, horse-power 5,800. Boiler—Four, single-ended cylindrical. Engines—Two Parson's geared turbines. Speed—14 knots.

Space is provided in five holds for 12,000 tons measurement cargo. For handling this fourteen winches will be fitted and a special 30-ton crane.

Although not a passenger steamer, four two-berth cabins will be provided for first-class passengers.

A sister ship to the *Toyooka Maru* is also being built by the Mitsu Bishi Dockyard and will be propelled by similar geared turbines. These two ships and the *Anyo Maru*, also built at Nagasaki, are the only Japanese vessels fitted with this form of propulsion.

Steam Line to Borneo:—A line of steamships has been established to ply between Kudat, British North Borneo, and the island of Palawan in the Philippine Group. Palawan lies somewhat out of the line of interisland trade and few vessels from Manila touch at ports of the island. The first North Borneo steamer of the new line to arrive recently made the initial voyage. The vessels are under charter of Chinese traders from North Borneo. The vessel carried to Balabac, Palawan, a mixed trading cargo worth about \$5,000 and carried back to Borneo about \$6,000 worth of Palawan products, consisting of \$3,600 worth of almaciga, a resin very valuable for varnishes; pearl button shells worth \$1,245; beche de mer worth \$485, and bejuco (Philippine rattan) worth \$450. The bejuco is sold in the Singapore market as the Borneo bejuco and commands a high price.

New Mitsu Bishi Dock:—The Mitsu Bishi Company's dry dock at Hikoshima, an island in the Shimonoseki Straits, was opened with due ceremony on the 1st December.

Pearl Harbour's Naval Dry-Dock:—Washington, Dec. 4, 1914. A contract has been signed for the completion of the naval dry-dock at Pearl Harbour, in Hawaii, on which work has been discontinued for two years.—Reuter.

Icebreakers:—The two icebreakers "Marksman" and "Engineer," which were built for the Russian Government by the Kiangnan Dock, arrived safely at Vladivostok, under their own steam, November 15, after a boisterous passage during which the little vessels behaved splendidly.

BUILDING

New Masonic Temple, Manila:—Bids for the construction of the Masonic temple, which when completed will be one of the largest and most beautiful buildings in Manila, were opened October 24th.

The bids were as follows.

J. A. Ainsworth	P. 538,000
Patstone & Merritt	481,684
Mr. Caronna	454,150
Tan Samco	443,000
S. C. Choy & Co.	499,700
F. S. Harris	525,000
Mr. Buck of Iloilo, (not including structural steel)	339,992

The plans for the building were drawn by the present consulting architect, George C. Fenhagen.

The building will be of five stories. The first or ground floor will be used for stores, the second and third floor for offices, and the fourth and fifth floors for headquarters of the various Masonic lodges and organizations. The site of the building is that previously occupied by the old "English hotel" on the Escolta, between the present English drug store and Alkan's establishment, from 76 to 100 Escolta.

The site was purchased two years ago from Consuelo Roxas for P200,000. The money for the building was partially raised by the issuance of bonds which were taken up by individual Masons and by the various Masonic organizations. Should the amount thus raised not suffice for the purpose, the intention is to negotiate a loan to make up the difference. It is expected that construction will begin in the near future, soon after the bids are awarded.

Peking Buildings.—So far as the building trade is concerned in the Capital there is no indication of hard times or a belief that business is likely to remain long in its present unsatisfactory state. Operations are being rushed on most of the new structures, the idea, of course, being to complete the actual brick and stone work before frost puts a stop to all outside work of this description. The Banque de l'Indo-Chine has made rapid progress since the summer and the stone work is nearly completed. Not so with the Chartered Bank opposite the American Legation. It will probably have to remain in the unfinished stage during the winter months. The new Peking Hotel gives promise of being open at an early date. New blocks are going up in the business centre of the city, and Peking is every day becoming very different to the ancient and secluded city of fifteen years ago.

New Treasury Building, Peking.—According to the *Asia Ah Pao*, the Office of the Ministry of Finance will before long be removed to the new building near the North Lake if the Ministry can make the Hugo Leu Company complete the contract within the time limit.

The building which the Ministry of Finance now occupies was formerly the Yamen of the Board of Revenue, but it has been mortgaged to the Banque Industrielle de Chine. In view of the poor condition of the premises, which are not worth repairing, the Minister has selected the old Yamen of Luanyiwei or the Bureau of Imperial Attendants as the site for the new building of the Ministry of Finance. Some time ago, a contract was concluded with the Hugo Leu Company for the new building of the office for \$250,000. It has been stipulated that the building would be equipped with all modern conveniences, such as the steam pipes, and that materials of the best quality would be imported from Germany. On account of the war, as the material was detained or could not be sent to China, the German firm was obliged to postpone the beginning of the work, but the Ministry of Finance has been insisting upon the company commencing in accordance with the contract. It is expected that the premises may be completed by the end of the year.

Siam, General Construction Work.—The Siamese budget for the fiscal year 1914-15 provides for the following construction work:

A grant of \$18,500 for an office for the Fine Arts Department, and \$44,400 for the construction of a mausoleum for the statues of the Kings of the present dynasty. For the completion of the new audience hall, the construction of which was begun several years ago, \$311,540 has been provided this year and \$314,500 will be allotted in the budget for 1915-16. These allotments are to be met out of ordinary revenue of the Kingdom.

High School Building at Pasig, P. I.—The recommendation for the construction of a P55,000 high school building at Pasig, which was presented to the governor general some time ago by Dr. Angeles of the assembly, is again under consideration.

The suggestions made by the doctor to the chief executive would, if adopted, provide for an allotment of P25,000 from insular government funds. The provincial board of Rizal has already apportioned P30,000 for the construction of a provincial high school at Pasig.

PETROLEUM

Trade in Formosa:—More petroleum was produced in the first half of 1913 in the Island of Formosa (or Taiwan), than in any one whole calendar year previous to that. The quality of this oil is not very high, as it gives off too much smoke, but it can be used for various commercial purposes. Oil veins are numerous and are frequently found when excavations for tunnels, etc., are made. In 1913 a big well that flowed 2,400 gallons a day and spouted 110 feet—the largest on the island—was found near Byoritsu. The kerosene market is supplied by the Standard Oil Company of New York and the Rising Sun Petroleum Company. They meet with a great deal of trouble on account of adulteration of their goods. A cheap grade of oil is mixed with oil of a better quality and the mixture is then sold under the name of a better oil. This greatly harms the trade and it is hoped some way will be found to stop the practice. Kerosene imports for the past two years follow: American, 1912, \$239,112, 1913, \$242,900; Japan 1912, \$112,442, 1913, \$134,154; Dutch East Indies, 1912, \$137,548, 1913, \$215,892.

Japanese Oil Trade in 1913:—There was a slight decrease in imports to Japan in 1913 as compared with 1912. This was due to the increased output of Japanese wells and not to competition from other countries. The newly discovered wells would also indicate that a further decline in the kerosene import trade may be anticipated. The United States ranks first in the importation of benzine, illuminating oils, and paraffin wax. The importations of kerosene for 1912 and 1913 from the United States were; 1912, \$4,517,724; 1913, \$3,773,411. From the Dutch East Indies 1912, \$1,674,000; 1913, \$1,755,361.

The Shensi Oil Fields:—Mr. Hsiung Hsi-ling Chief Director of the National Oil Bureau, reports the safe arrival of the drilling machines and American Engineers at Yenchang, Shensi, on the 22nd October, and that the American experts are engaged in putting the machinery in order in the west suburb of Yenchang so that drilling will be commenced before the 10th inst. Mr. Hsiung adds that the weight of the machinery is over 1,700 Tons and owing to the bad condition of the roads, it took the Chinese officials fully six months to transport it to its destination. The second instalment of the drilling machines of the Standard Oil Company of New York will not be transported to Yenchang until next spring.

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Bank of China
Deutsch-Asiatische
Hongkong and Shanghai Banking Corp.
International Banking Corp.
Banco Español Filipino
Russo-Asiatic Bank
Yokohama Specie Bank.

Bedsteads

Simmon Mfg. Co.

Belting

Geo. Angus & Co., Ltd.
F. Reddaway & Co., "Camel Hair," etc.

Blasting Powder

Curtis's & Harvey Ltd.
Rendrock Powder Co.

Bleaching Plants

Mather & Platt, Ltd.

Boilermakers

Babcock & Wilcox, Ltd.
A. F. Craig & Co.
Taikoo Dock & Engineering Co.

Bridge-Builders

White & Co., Inc., J. G.
Shanghai Dock & Engineering Co., Ltd.

Bridge Materials

United States Steel Products Co.

Building Materials

Haywood Bros. & Eckstein Ltd.
Malthold Paraffine Paint Co.
W. H. Anderson & Co.

Cables, Telephone, Telegraph Supplies

Bellis & Moreom, Ltd.
W. T. Henley's Telegraph Works Co., Ltd.
Melchers & Co.

Cables

Andersen, Meyer & Co.
Shewan, Tomes & Co.

Cableways

Lidgerwood Mfg. Co.

Car Wheels and Axles

United States Steel Products Co.

Cement

Anderson & Co., W. H.
Green Island Cement Co., Ltd.

Cement Machinery

Austin Drainage Excavator Co.

Centrifugal Pumps

Drysdale & Co.

Chemical Extraction Plants

A. F. Craig & Co., Ltd.

Chimneys

Babcock & Wilcox Ltd.
A. F. Craig & Co.

Cigar and Cigarette Manufacturers

Cia. Gral. de Tabacos de Filipinas
Germinal Cigar Factory
Olsen & Co., Walter E.

Cloth Finishing Plants

Mather & Platt, Ltd.

Coal Handling Machinery

Babcock & Wilcox Ltd.

Coal Mining Co.'s

Kailan Mining Administration
South Manchuria Railway Co.

Concrete Mixers

Austin Drainage Excavator Co.

Contractors, Electrical

Mather & Platt, Ltd.
Shanghai Dock & Engineering Co. Ltd.
Arnhold, Karberg & Co.
Shewan Tomes & Co.
Frank L. Strong
Siemens China Co.
Dick, Kerr & Co., Ltd.

Contractors, (General)

Bohler Bros. & Co.
Frank L. Strong
Shanghai Dock & Engineering Co. Ltd.
White & Co., Inc., J. G.

Contractors Supplies

Austin Drainage Excavator Co.

Consulting Engineers

White & Co., Inc., J. G.
G. M. Gest

Conveyors

Babcock & Wilcox Ltd.

Copper Tubing

Broughton Copper Co., Ltd.

Couplers

McConway & Torley Co.

Cranes

Babcock & Wilcox Ltd.
Werf Gusto

Diving Apparatus

A. J. Morse & Son

Drag Line Excavator

Lidgerwood Mfg. Co.

Drawing Instruments

Andersen, Meyer & Co.

Dredgers

Middleton & Co., Ltd.
Priestman Bros. Ltd.
Shanghai Dock & Engineering Co., Ltd.
Werf Gusto.

Dyeing Plants

Mather & Platt, Ltd.

Economizers

Babcock & Wilcox Ltd.

Educational

International Correspondence Schools

Electric Lighting Plants

Andersen Meyer & Co.
Arnhold, Karberg & Co.
Dick, Kerr & Co., Ltd.
Westinghouse E. & M. Co.
Fearon, Daniel & Co.
General Electric Co.
Siemens China Co.
Shanghai Machine Co.
Shanghai Dock & Engineering Co., Ltd.
Shewan, Tomes & Co.
U. S. Steel Products Co.
Western Electric Co.

Electrical Supplies

Andersen, Meyer & Co.
Arnhold, Karberg & Co.
Jardine, Matheson & Co.
Babcock & Wilcox
Fearon, Daniel & Co.
General Electric Co.

Mather & Platt, Ltd.

Shewan, Tomes & Co.
Siemens China Co.
Shanghai Machine Co.
Shanghai Dock & Engineering Co., Ltd.
U. S. Steel Products Co.
Western Electric Co.

Engines

Shanghai Dock & Engineering Co., Ltd.
A. F. Craig & Co.

Excavators and Elevators

Austin Drainage Excavator Co.
Priestman Bros. Ltd.
Shanghai Dock & Engineering Co., Ltd.

Explosives

Arnhold, Karberg & Co.
Jardine, Matheson & Co.
Rendrock Powder Co.

Explosive

Curtis's & Harvey, Ltd.

Feed Water Heaters

Babcock & Wilcox, Ltd.

Filters (Mechanical)

Mather & Platt, Ltd.

Firebrick

W. H. Anderson & Co.
Kailan Mining Administration

Fire Engine

Dick, Kerr & Co., Ltd.

Fire Prevention Apparatus

Mather & Platt, Ltd.

Filament Lamps

Dick, Kerr & Co., Ltd.
Frank L. Strong
Siemens China Co.
Westinghouse E. & M. Co.

Folding Chairs

Simmon Mfg. Co.

Food Products

Anderson & Co., W. H.

Fan Blowers

Drysdale & Co.

Gas Engines

Mather & Platt, Ltd.
Worthington Pump Co., Ltd.

Gasoline Lighting Plants

Andersen, Meyer & Co.

Graphite Paint

J. Dampney & Co.

High Speed Engines

Drysdale & Co.

Hoisting Engines

Lidgerwood Mfg. Co.

Hose

Geo. Angus & Co.
Interlock Metal Hose Co.
F. Reddaway & Co., Fire Hose "Sphincter Grip," Armoured Hose, etc.

Ice Machinery

Vilter Mfg. Co.
Vulcan Iron Works

Insulating Material

Micanite & Insulators Co., Ltd.

Insurance

Stevenson & Co., Ltd., W. F.

Ironfounders

A. F. Craig & Co.

Journal Boxes

T. H. Symington Co.

Locks

Joseph Kaye & Sons, Ltd.
Shewan, Tomes & Co.

Locomotive Speed Indicator and Recorder

Hasler Telegraph Works.

Locomotive Headlights

Pyle-National Electric Co.

Logging Machinery

Lidgerwood Mfg. Co.

Lubricants

Albany Lubricating Co.
Standard Oil Co.
W. H. Anderson & Co.

Lumber Dealers

Robert Dollar Co.
Jardine, Matheson & Co.
Norton Harrison Co.
Shewan, Tomes & Co.

Machinery Merchants

Andersen, Meyer & Co.
Arnhold, Karberg & Co.
Shanghai Machine Co.
Fearon, Daniel & Co.
Frank L. Strong
Schuchardt & Schutte.
Shanghai Dock & Engineering Co., Ltd.

Machine Tools

American Tool Works Co.
Schuchardt and Schutte.

Marine Engines

Fairbanks, Morse & Co.

Meat Products

W. H. Anderson & Co.

Mechanical Rubber Goods

F. Reddaway & Co.

Mill Machinery

Shanghai Dock & Engineering Co., Ltd.
A. F. Craig & Co., Ltd.

Mineral Oil Plants & Machinery

A. F. Craig & Co.

Mining Machinery

Melchers & Co.
Shanghai Dock & Engineering Co., Ltd.
Shewan, Tomes & Co.
Gould's Manufacturing Co.

Motors

Shanghai Dock & Engineering Co., Ltd.

Motor Launches

Shanghai Dock & Engineering Co., Ltd.

Motor Spirits

Standard Oil Co.

Motor Tyres

F. Reddaway & Co.

Motor Vehicles

Commercial Car Co.

Oil Engines

Fairbanks, Morse & Co.

Oil Mill Machinery

A. F. Craig & Co.

Packings

F. Reddaway & Co.

Paints Oils and Varnish

Standard Oil
Albany Lubricating Co.

Printing Machinery

Jardine, Matheson & Co.
Shewan, Tomes Co.

Pulleys (Steel)

Schuchardt & Schutte
Shanghai Machine Co.
Shanghai Dock & Engineering Co., Ltd.

Pumps

Anderson, Meyer & Co.
Drysdale & Co. Ltd.
The Goulds Manufacturing Co.
Fairbanks, Morse & Co.
Shewan, Tomes & Co.
Jardine, Matheson & Co.
Mather & Platt, Ltd.
Shanghai Machine Co.
Shanghai Dock & Engineering Co., Ltd.
Joseph Evans & Sons
Worthington Pump Co.

Railroads

Chinese Government Railways
South Manchuria
Southern Pacific Co.
Chosen (Korea) Railways.

Railroad Supplies

American Locomotive Co.
Andersen, Meyer & Co.
Arnhold, Karberg & Co.
Baldwin Locomotive Work.
Robert Dollar Co.
Dick, Kerr & Co., Ltd.
Fearon, Daniel & Co.
Hurst, Nelson & Co., Ltd.
Jardine, Matheson & Co., Ltd.
Lima Locomotive Works.
McConway & Tooley Co.
Pyle-National Electric Co.
T. H. Symington Co.
Shewan, Tomes & Co.
Shanghai Machine Co.
Shanghai Dock & Engineering Co., Ltd.
U. S. Steel Products Co.
Railway Signal Co., Ltd., The

Railway Signals

Railway Signal Co.

Refrigerating Machinery

Anderson, Meyer & Co.
Vilter Mfg. Co.
Vulcan Iron Works.

Reinforced Concrete Construction

Shanghai Dock & Engineering Co., Ltd.
U. S. Steel Products Co.

Roofing Materials

W. H. Anderson & Co.
Norton & Harrison.

Rope Manufacturers

Johnson-Pickett Rope Co.
U. S. Steel Products Co.
Ynchausti & Co.
Shewan, Tomes & Co.

Safes

Mustard & Co.
Shewan, Tomes & Co.

Scales

W. & T. Avery, Ltd.

Sewer Pipe & Tile

W. H. Anderson & Co.

Sheet Steel

U. S. Steel Products Co.

Shipping Agents

Cia. General de Tabacos
Shewan, Tomes & Co.
Stevenson & Co., Ltd.

Shipbuilding and Repairs

Fiat-san Giorgio Ltd.
Tsingtauer Werft
Hongkong & Whampoa Dock Co., Ltd.
Mitsu Bishi Dock and Engineering Works
Shanghai Dock and Engineering Co., Ltd.
The Taikoo Dockyard and Engineering Company of Hongkong, Limited

Ship-Chandlery

Ynchausti & Co.

Steamship Companies

Cia. Transatlantica.
Robert Dollar Company.
Pacific Mail S. S. Co.
Ynchausti & Co.
Toyo Kisen Kaisha.

Steam Turbines

Dick, Kerr & Co. Ltd.
General Electric Co.
Westinghouse E. & M. Co.

Steel Manufacturers

United States Steel Products Export Co.

Steel Works

Bohler Bros. & Co., Ltd.
U. S. Steel Products Co.

Stokers

Babcock & Wilcox Ltd.

Stretchers

Simmons Mfg. Co.

Structural Steel

Bohler Bros. & Co.
Shanghai Dock & Engineering Co., Ltd.
U. S. Steel Products Co.

Sugar Machinery

A. F. Craig & Co.

Superheaters

Babcock & Wilcox Ltd.
Schmidt Superheating Co.

Tanks

Pacific Tank and Pipe Co.
Shanghai Dock & Engineering Co., Ltd.
U. S. Steel Products Co.
A. F. Craig & Co.

Telephones

The Western Electric Co.
Kellogg Switchboard & Supply Co.
Anderson, Meyer & Co.

Textile Machinery

A. F. Craig & Co.

Tiles and Bricks

Green Island Cement Co., Ltd.
Kailan Mining Administration.

Tobacco Dealers

British-American Tobacco Co., Ltd.
Cia. General de Tabacos
Olsen & Co., Walter E.

Tools

American Tool Works Co.
Shanghai Machine Co.
Shanghai Dock & Engineering Co., Ltd.

Tool Steel

Bohler Bros. & Co. Ltd.
U. S. Steel Products Co.

Tramcars

Hurst, Nelson & Co. Ltd.

Tramway Equipment

Dick Kerr & Co. Ltd.
Westinghouse E. & M. Co.

Trucks

Commercial Car Co.

Valves

Shewan, Tomes & Co.

Vegetable Oil Plants

A. F. Craig & Co.

Ventilating Apparatus

Shewan, Tomes & Co.

Water Softeners

Babcock & Wilcox Ltd.

Waterworks Equipment

Edgar Allen & Co. Ltd.
Worthington Pump Co.

Weaving Machinery

Shewan, Tomes & Co.

Weighing Machines

W. & T. Avery, Ltd.

Windmill

Fairbanks, Morse & Co.

Wood Working Machinery

American Tool Works Co.
Defiance Machine Works
Shanghai Dock & Engineering Co., Ltd.

Wrenches

Trimont Mfg. Co.

INDUSTRIES

Hunan Copper Mint Abolished.—The Ministry of Finance is exerting its energy towards Currency Reform. Various necessary measures, such as suspension or limitation of output of copper coins and amalgamation of mints, throughout the provinces, have been successively enforced.

In view of the fact that the new currency is about to be put into circulation, the Ministry of Finance has, with the sanction of the President, ordered the abolition of the Hunan Mint, which was specially devoted to copper coinage in the province.

The abolition will result in a more uniform exchange between silver and copper coins.

Oil-Milling in Manchuria.—Although it is not generally known, very important and widespread commercial interests are involved in the developments which are now occurring in connection with the soya bean industry in the Far East. It was, of course, always inevitable that eventually Hull, Marseilles, and other great European oil-milling centres would have to share their monopoly with the Eastern countries and those British Colonies where the production of the raw material has been more or less extensively undertaken. Japan has characteristically led the way in establishing a milling industry, and is assured of success in view of the world's demand for vegetable oils being of such great and constant growth, always well in excess of the supplies available. Now a similar line of enterprise has been commenced in Manchuria, the original and principal source of supply of the soya bean, and, this once started, no one would venture to forecast the extent to which the oil-milling will develop in course of time, with unlimited supplies of raw material on the spot. For years the soya bean has been exported in huge quantities from both North and South Manchuria to Japan and Europe, where, by various processes, the invaluable product of bean-oil has been produced. It was only three years ago that Messrs. Lever Bros., Ltd., realising the enormous future in store for the oil secured from the Manchurian bean, in addition to their other ventures elsewhere, founded a mill at Kobe upon a very scientific basis. Since that time many mills have sprung up throughout Japan, which country's trade has undoubtedly benefited exceedingly by this new development. Now that a similar mill has been erected in the manufacturing and distributing town of Harbin, the chief commercial centre of North Manchuria, and the junction of the main line between Europe and Vladivostock, this step may be regarded as

only the preliminary of a series of such enterprises throughout the length and breadth of China.

An Opening for Milling Machinery Manufacturers.—Following upon this development at Harbin, it is obvious that the agricultural pursuits of the Chinese will receive a necessary impetus, and the bean will be cultivated in still larger quantities than hitherto. An important consequence is that a new trade in milling machinery will be created, and now would seem to be an exceedingly opportune moment for a re-kindling of business relations between the English manufacturer and the Manchurian importer. In any case, a larger market for all kinds of implements and tools necessary to effect the successful working of the industry should be found available. It is true that, consequent upon the unsettled conditions prevailing during the year 1912, a very poor crop was produced in 1913, but, with a brighter outlook, the work of recuperation will be energetically pursued, with milling enterprise as an important factor, to the great stimulation of the general prosperity and trade of this somewhat neglected market. As we have suggested, the supplies of beans will probably be increased to meet the requirements of local mills without diminishing the exports, but at the same time Hull will do well to look more keenly to the possibilities of supply from such Colonies as South Africa, where the cultivation of oil products, including the soya bean, is already well under way and only lacks full organisation and direction.

Government Steel Plate Plant.—The installation of a plant for the production of thick plates of steel, to be completed in three years, the whole expenses estimated at 2,400,000 yen is provided for in the Japanese Government Budget for 1915, under the Department of Agriculture and Commerce.

New Woollen Mill in Himeji.—The opening ceremony of a new Kobe concern, the Japan Wool Spinning Co., was held at the mill at Himeji early in November and was attended by about 600 guests. The grounds of the mill cover 32,000 tsubo, the mill itself, a brick building, over 3,000 tsubo, and the number of spindles already installed is 18,900.

An Arsenal for Manchuria.—Some time ago when the Provincial Assembly was in

session, one of its members moved a bill for the establishment of an Arsenal for the Three Eastern Provinces, but in view of the financial stringency, this question has been dropped. It is now learned that the Chiang Chun of Fengtien has suggested to the Government to the effect that there are above 100,000 regular troops and a large number of police in these provinces, whose supply of munitions depends entirely upon foreign sources and that since the outbreak of the European war the provincial authorities there have been no longer able to get munitions as regularly as before. In order to do away with this inconvenience, the Chiang Chun added, an arsenal should be established in a suitable place in Manchuria for these three provinces. As to the funds for carrying out such a project, the Chiang Chun further suggested that the provincial Government of the three provinces concerned shall be responsible for half of such funds while the other half should be raised by the Central Government.

The Teh Dah Cotton Mill, Shanghai.—A cotton spinning mill is being floated by Chinese merchants, the promoter being Mr. Moh Stang-yu, Ph.B., who has for the last six years studied the cotton industry in America. According to the prospectus, over fourteen mow of land will be available for Tls. 25,000; mill buildings, drainage, etc., Tls. 63,000; machinery, with 10,368 spindles and accessories, to cost Tls. 165,000 (half price to be paid first, the balance in six half-yearly instalments); water supply vessels and other outlay, 17,000; installation and labour, Tls. 3,000; and miscellaneous expenses, Tls. 10,000; cash capital required will be about Tls. 201,400 only. A very tempting estimate of profitable working is also given, something like 30 per cent. or more, it is thought, can be realized.

The promoters of the new concern are men of means and experience and several of them are actively engaged in the cotton trade. A company named Teh Dah Cotton Mill, Ltd., has been formed and will in due course be registered with the Ministry of Agriculture and Commerce. The capital, Tls. 300,000, divided into 3,000 shares of Tls. 100 each, has been fully subscribed, all by Chinese.

The site of the mill is located on Lay Road, close to the Yangtszepoo bridge. Electricity from the municipal main supply will be utilised for driving the motors. The mill will be fitted with automatic fire extinguishers.

Mr. Moh is very confident of the success of the new concern. He said that the Chinese cotton industry has failed not because of capital, but through bad management and lack of experience.